HOUSTON, TEXAS

Ja 13150

and SANITARY CHEMICALS



In this issue...

What will be the synthetic detergents of the future?

Floor waxes and sealers in the household market.

Selling power in merchandising soap products.

Knipling discusses DDT in stock sprays.

Cover photo: Leonard J. Oppenheimer, president, Chemical Specialties Manufacturers Assn., meeting Chicago, June 12-13. Mr. Oppenheimer is vice-president and secretary of the West Disinfecting Co. exclusively yours

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Candy's DeLuxe-Bright Beauty

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Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove...also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

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An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy...

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only an resistance to the abrasion of traffic, but even more so an resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper bolance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats of wax and may seriously increase the difficulty in removab when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the quality of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW." it aids materially in producing the most important features of a good floor wax...ALL AROUND QUALITY OF PERFORMANCE.

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2515 W. 35th St., CHICAGO



Volume XXVI Number 6 June 1950

and SANITARY CHEMICALS

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Methocel:

the Well Known
Thickener



The outstanding advantage of Methocel (Dow Methylcellulose) as a thickener is that so little will do so much. For example, three or four per cent of high viscosity Methocel will thicken potassium soap solutions to the point where they will not pour. To the soap manufacturer, this thickening quality is highly useful in the production of liquid soaps and shampoos. What's more, Methocel improves sudsing and lathering properties.

Soap manufacturers have found other valuable advantages in Methocel, particularly as a foaming agent in synthetic detergents. Methocel has been recommended highly as an additive to bar soap for increased hardness of soap, improved soap texture, better lathering properties and added smoothness and stiffness of lather.

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sure, ALKATROL is making money

the cleaner that gets out dirt, scum, soap film the conditioner that revitalizes dulled floors the conditioner-cleaner that gives floor-safety NOW! Another new feature! ALKATROL with AIR-FRESHENING ODOR Now-the entire floor surface becomes a giant dispenser that automatically freshens the at-mosphere throughout the room to share the common is slaves. Chart shows ALKATROL sales growth

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Now you can have the advantages of a bead in dry mixing detergents without materially affecting the weight of the product you normally pack in your container. With high density ULTRAWET SK you have a product which is free-flowing even in humid weather . . . easier and more uniform in mixing . . . lighter in color with improved appearance in your finished product.

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for soaps

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IN SYNTHETIC DETERGENTS

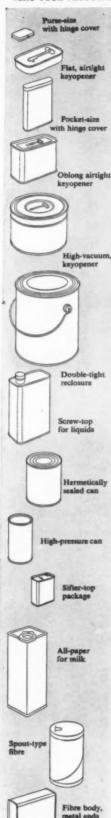
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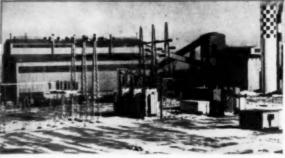
While substantially all of our immediate production has been contracted, we will welcome an opportunity to discuss your requirements, if you can be most economically served on phosphates from Carteret, N. J., or Newark, Calif.; on Caustic Soda or Caustic Potash from South Charleston, W. Va.; on Natural Soda Ash from Westvace, Wyoming. CAUSTIC POTASH—Liquid 45-50%, Flake and Seild 88-92% • CAUSTIC SODA—Liquid 50% Standard and Rayon Grades; Liquid 70-73% Standard Grade, Flake and Seild • NATURAL SODA ASH • ACID SODIUM PYRO-PHOSPHATE • DISODIUM PHOSPHATE • MONOSODIUM PHOSPHATE • SODIUM TRIPOLYPHOSPHATE • TETRAPOTASSIUM PYROPHOSPHATE . TETRASODIUM PYROPHOSPHATE • TETRASODIUM PYROPHOSPHATE CRYSTALS • MONOPOTASSIUM PHOSPHATE • DIPOTASSIUM PHOSPHATE • TRIPOTASSIUM PHOSPHATE • PHOSPHORIC ACID 75%

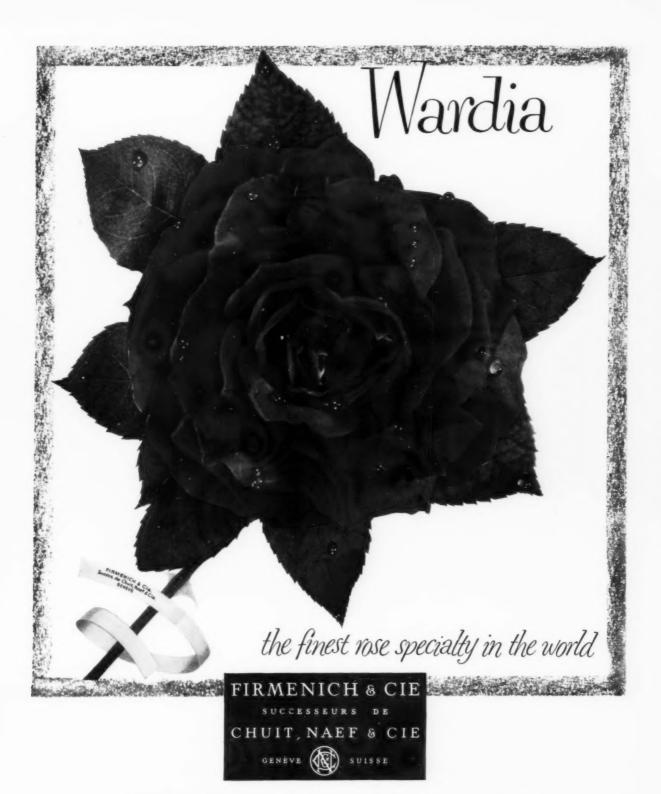
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THE MEDIUM PH DETERGENT SILICATE

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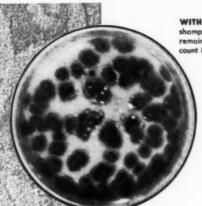
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Emery 610 Distilled Soya Fatty Acid	25-30	115-135	10Y/2.0R-1"	195-201	197-203	3%
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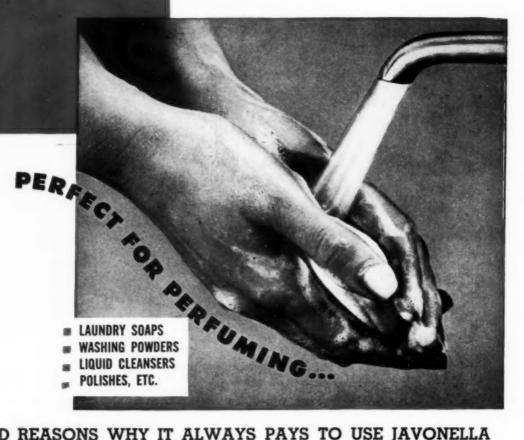
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Color—Gardner 1933	2- 4	2- 4
Unsaponifiable %	0.25-0.50	0.25-0.50
Saponification Value	252- 259	261-270
Acid Value	251-258	260-269
Iodine Value	8- 14	6- 12

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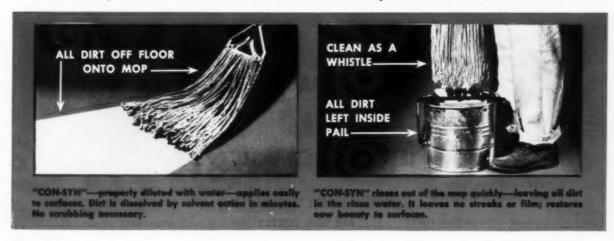
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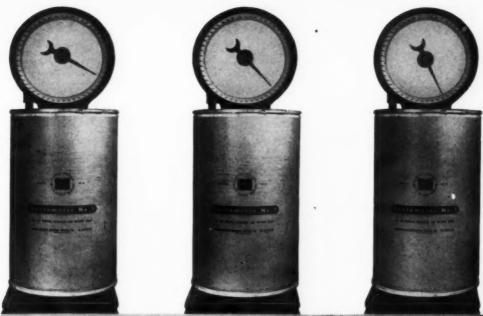
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Threshold additions of a few parts per million inhibit precipitation of the calcium and magnesium hardness elements.

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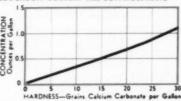
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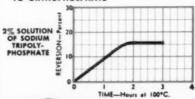
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For toilet or laundry soap cakes of any shape (except highly convex cakes) with side band. Speeds of 120-140 cakes per minute. Jones Presses, with their exclusive, patented toggle motion, have become the standard throughout the world wherever high production, high quality, and perfection of finish are paramount considerations.

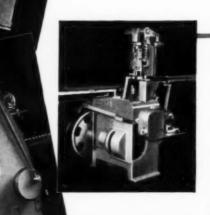
Standard Jones Presses illustrated here meet all soap pressing requirements. A Jones Toggle Operated Soap Press will improve the appearance of your product, increase your production, reduce your costs. Write today for complete information.

Type K Duplex Press

Applications same as Type K Simplex. Presses two cakes simultaneously. Speeds up to 250 cakes per minute.

Type R Pin Die Press

For toilet soap cakes of unusual shape, aval cakes, or cakes having highly convex faces, with or without side band. Speeds up to 100 cakes per minute.



Type ET Press

For small toilet soap cakes with side band. Speeds up to 120 cakes per minute.

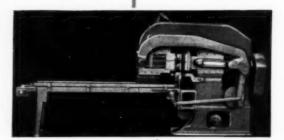
Type F Press

For large toilet or laundry scap cakes. Available in Simplex or Duplex Models, pressing one or two cakes per stroke.



Type E Press

For small toilet soap cakes (1½ oz. or less). Speeds up to 200 cakes per minute.



R. A. JONES & COMPANY, INC.

P. O. Box 485

CINCINNATI, OHIO

MANUFACTURERS OF JONES TOGGLE OPERATED SOAP PRESSES AND JONES CONSTANT MOTION CARTONERS

AS THE TOTO SEES IT

THE Missouri Circuit Court of Appeals has recently ruled against a soap manufacturer because he refused to supply plaintiff in a personal damage suit with a list of ingredients, and the percentages of each, in the formula for one of its products. The plaintiff claims that the product, a cleanser, caused a rash on her hands following use in washing dishes. In the court's opinion, the plaintiff is entitled to have all formula details on the product in question, "so that these facts could be submitted with the others in a hypothetical question to experts for their opinion as to whether the chemicals so compounded caused the results that followed. . . . We know of no law that prevents a court from compelling the divulging of a trade secret under circumstances where it is as material as here in ascertaining the facts."

The Missouri court seems to have thrown a sharp breaking curve in this case in the direction of manufacturers of products based on special formulas. As we see it, this decision, if upheld, could encourage an outbreak of similar suits, some justified perhaps, but most strictly on the phony side. A company interested in preserving the secrecy of its formulations would have further heavy pressure put on it to pay off on nuisance damage suits rather than to submit to court-enforced formula disclosure. The soap industry and others can only hope that when the top umpire gives his decision, the Missouri judge's ruling will be called just another wild pitch.

Here is another striking example of a case which should be tried before a technical referee rather than before a judge or a jury. Juries are obviously incompetent to try such actions, and judges, even though they may be experts in the law, often lack the scientific knowledge to decide such technical issues wisely. In the course of involved legal procedure, the true facts are just as likely to be obscured as revealed. To our mind, only an impartial and court-appointed referee would be competent to decide such a case—and if any formula disclosure is involved, manifestly it

should be performed in secret and in confidence. Formula details, in all fairness, should not be given to the plaintiff, to whom in ninety-nine cases out of a hundred they would be meaning-less—that is unless the disclosure of the formula in question were the real reason for the suit.



O establish and maintain brand names has been a costly process over the years, as was emphasized to us by a meeting of the Brand Names Foundation in Los Angeles not long ago. The millions upon millions of dollars, which have been spent for the purpose, upon various occasions have been the target of attacks by left-wingers and others of the so-called "liberal" persuasion. The contention has been made often that brand names are chiefly an attempt to monopolize markets and charge higher prices, and that the ultimate consumer pays the bill without obtaining any benefits. Inasmuch as soaps are mentioned prominently in most of these attacks, the interest of the industry is more than casual.

Nobody questions, we believe, that to establish a brand name and keep it established costs money. Thus, it would appear somewhat foolhardy to invest this money in a product or products of questionable quality. That is one reason why the great majority of established branded items are above average quality and have good consumer acceptance. The unbranded or unknown product may be as good, or even superior. Most consumer experience, however, is to the contrary. By and large, it is the known, branded product which has proved to be satisfactory, - and for this assurance of continued satisfaction, most consumers gladly pay a higher price. Money wasted? Possibly, - just like the fire insurance premium is wasted if we don't have a fire.

Through the years, brand names undoubtedly have more than earned their keep in protecting the consumer. Arguments against them, and particularly in favor of government graded specification products, in our opinion, are mostly specious and impractical. Were this not true, the brand name system of merchandising in these U. S. would have tumbled of its own weight long years ago. But today, because of public acceptance, it is stronger than it ever was.



S PART of the recently released Gillette Committee Report on Oils and Fats, particularly that part dealing with soap advertising, the following appeared: "An independent soap manufacturer stated that the three major soap companies were advertising the independents out of business." This was put in the record by Ernest Gillam of Fort Worth, Texas, a contention which he had made also on previous occasions. We tab it a wholly irresponsible statement for which no proof has ever been offered. In fact, considerable evidence points to the exact contrary. Who and where are the "independents" who have been advertised out of business? In fact, we have heard reports upon occasion where small local soapers have shown an increase in sales in their areas during intensive advertising campaigns by some of the larger manufacturers.

Particularly, the point which strikes us about this "advertising the independents out of business" in the Gillette Committee Report is that it impugns the entire report. If this can get into the report, just how responsible and accurate is the report as a whole,—and what is even more significant, just how sound and honest of purpose can be the concluding legislative recommendations?



HEN the prediction was made about four years ago that by 1950 synthetic detergents would be turned out at the rate of a billion pounds per year in the U. S., few persons in the soap industry accepted the figure seriously. In fact, this forecast offered by a technical man for one of the basic detergent producers in an address before a group of soapers brought a few smiles and tongue-in-cheek acceptance among those present. The annual production rate at that time was about a quarter-

billion pounds per year. The speaker was Lawrence Flett, and although we realized that he had lived with synthetic detergents since their earliest infancy, we too at that time had a feeling that his enthusiasm for the superior merits of the synthetic might temporarily have overcome his cooler judgment.

Now come the figures for the first quarter of 1950, and true to the prediction, they exceed the billion-pound yearly rate. To be exact, the output for the first three months of this year was 262,000,000 pounds, according to the figures of the Association of American Soap & Glycerine Producers. If this production rate continues, the first billion-pound detergent year will be here considerably in advance of the expectations of most of us.



OMPETITION in the field of certain potash soap specialties has developed something of a unique situation in some parts of the country, but more particularly in the east. Reports of sharp price cutting in a keen competitive battle for business have been common during the past six weeks. Prices as a consequence have moved sufficiently low on some products that certain manufacturers practically have withdrawn from the market temporarily.

At the same time, prices for some vegetable oils and fatty acids have risen sharply from the levels of a month ago. Manufacturers have announced higher prices for alkalies effective in the near future. In short, while potash soap prices have declined, raw material costs have moved up and show a tendency to continue upward. Where the logic of this situation may be we do not know. But, that is the situation as it stood at the beginning of this month.

That these reduced potash soap prices can continue for long, we do not believe. An opportunity to stock up by janitor supply jobbers and converters would seem to be with us. If there are manufacturers who choose to sell below replacement production costs, that is their business. This does not alter the fact that the same opportunity may not knock again for soap buyers for some time to come and that higher raw material costs must soon exert their influence.

Detergents of the Future

By Dr. A. L. Fox*

Director of Research and Development Colgate-Palmolive-Peet Co.



N VIEW of the fact that synthetic detergents have been on the market for only about fifteen years, and in view of the tremendous strides made in these fifteen years, it is obvious that prognostications for the future are very hazardous. Therefore, this paper must come in the category of 'crystal gazing' of the purest type.

It should be made very clear at the outset that the entire synthetic detergent industry is one of intense economic competition. It must not be forgotten that the detergents are in competition with soap, which is inherently cheap (under normal conditions). Therefore, detergents must either do a better job in order to command a premium price, or they must do the same or better job at the same price. This adds up to the fact that detergents do have an economic ceiling which is fixed by the price of soap. Many sellers of raw materials set their prices on the comparison of soap costs and completely forget that in order to utilize present day detergent molecules expensive other ingredients must be added in substantial amounts in order to make the detergents effective. However, synthetic detergents have made the great strides because they do a better job than soap in hard waters, and-surprisingly enough-they are finding widespread acceptance in soft water areas.

In the future we may expect to find three types of improvement: 1. improvements in the conventional type detergent of today; 2. improvements through adding properties not now possessed by synthetic detergents; 3. changes in physical form.

Six major types of ingredients have been employed in the past in synthetic detergents: 1. active ingredients, the organic detergent compound; 2. inorganic builders; 3. organic builders; 4. foam boosters; 5. anti-redeposition agents; 6. brighteners.

Practically all of the present day synthetic detergents have anionic active ingredients. These are based on alkyl aryl sulfonates and on alcohol sulfates in the largest degree. In the next 50 years we may expect to see new active ingredients of perhaps greater efficiency per pound, thereby reducing the cost.

Another type of detergent molecule, which should assume important proportions in the future, is the non-ionic. There are on the market at present representatives of this class, and they possess certain outstanding characteristics. Their major weakness to date has been a lack of adequate foam for acceptance in the household field, but it is not difficult to foresee that better non-ionics will be synthesized. Most of those known at present have another deficiency which may impede their progress, and that is that they are liquids. This makes their preparation in spray-dried form most difficult, although it has been achieved.

Still another major class of organic surfactants are the cationic agents. To date, these have been unsuccessful in breaking into the household detergent field but they are widely used in certain industrial applications. They have certain merits which should make them of potential interest in the future; these will be discussed later.

In the field of inorganic builders for synthetic detergents, the phosphates have been known for many years. This is because they possess a certain detergency of their own and because they have sequestering action for the hardness of water. In the future we should expect entirely new builders to be evolved. While phosphates have been useful in the past, it is not difficult to visualize even better materials.

The manufacturers of inorganic chemicals have been singularly slow in offering other inorganic compounds which might be used as builders; certainly within the next 50 years it is easy to visualize improved builders not now known. Whether or not these will be based on phosphorus is not predicted, but certainly mixed salts of various elements should be evaluated.

Organic Builders in Detergents

THE use of organic builders in synthetic detergents is also known. Long-chain amide derivatives and long-chain alcohols have been described as detergency builders. Inasmuch as organic chemicals outnumber inorganic chemicals by an enormous figure, it is easy and safe to predict that tremendous strides will be made in the discovery and utilization of new organic builders, and this offers a real

^{*} Based on a paper presented before the 27th annual meeting of the American Institute of Chemists, Hotel New Yorker, New York, May 11-12.

field for the organic chemical producing companies of the country.

Another type of additive is the foam builder. Here again, such compounds are organic ones, and it is confidently predicted that hundreds of them will be discovered in the next 50 years. Compounds of these types offer attractive potentialities to the synthetic organic chemical companies of the U. S. and should be exploited.

Most, but not all synthetic detergents have an inherent weakness in that they permit redeposition of soil from dirty laundry water onto fabrics. CMC is one compound having the property of inhibiting this redeposition. For this reason, CMC is widely used, but it is quite expensive, and a cheaper and more effective product will certainly come along in the future. The properties necessary appear to be high molecular weight and a tendency to form micelles; this offers distinct possibilities for low polymers which are water-soluble. This is, then, a field in which polymer chemists might apply their talents to good advantage and aggressive companies might profit.

The last of the major constituents of synthetic detergents as we know them today are the brighteners. This type of compound has been known for many years and has been used in the paper industry. Brighteners are colorless organic dves having affinity for cellulose, but which have the ability to fluoresce, thereby making fabrics appear whiter and brighter than they actually are. The brighteners of today have been improved over the past decade but they still leave much to be desired. Inherently, they are not very light-fast, and lose considerable of their potency when the wash is hung out in bright sunlight for extended periods of time. Neither are they particularly fast to chlorine, and many women use bleach in their wash, undoing some of the good of the brighteners. We are confident in predicting that brighteners which are more light-fast and possessing greater fastness to chlorine will be evolved in the matter of a few years.

Now, looking into the more distant future, at the various types of

detergents not now available, we may consider first the possibility of a coldwater synthetic detergent. If a synthetic detergent could be made which would be as efficient in cold water as present day ones are in hot water, it would find extensive use in laundries and in many households. The home automatic washers of today require larger amounts of hot water than many households can furnish. With automatic washers a cold water detergent would be very welcome. The use of very hot water in laundries involves considerable expense, although it has the value of killing many of the germs on the clothes. It may be predicted that cold-water detergents will be evolved over the next 50 years, which will be very efficient.

Today, far more than half of the housewives use bleach to help them brighten their clothes. Bleach, however, is definitely detrimental to the life of fabrics; consequently it is desirable to have some other harmless material take its place. In general it is predicted that synthetic detergents over the next 50 years will be improved sufficiently so that the use of bleach will be absolutely unnecessary.

Many times, clothes are mildewed from leaving damp wash in the basket. It is not unreasonable to assume that a synthetic detergent will be developed in the future which will have anti-mildewing characteristics, as a further feature to command the attention of purchasers.

Synthetic detergents are used today to some extent on woolens. It is not unreasonable to hope for mothproofing agents which may be applied to the fabric from a synthetic detergent. In this way sweaters washed in such a preparation will be mothproofed at the same time. The known present mothproofing agents must be applied under strongly acid conditions, which with their high cost has prevented their use in detergents. Certainly it may be anticipated that in the next 50 years economical mothproofing compounds will be found which can be used in synthetic detergents, and many manufacturers will wish to add this property to their products.

We hear much today in the

press about the unsanitary conditions in the public washing machines, in stores where automatic washers are rented. Most of this is probably inspired for propaganda purposes, but certainly a germicidal detergent would have much to recommend it. It is confidently predicted that in the future such germicidal action will be added to synthetic detergents. Even today some manufacturers claim such properties. Earlier cationic detergents were mentioned. Most cationic compounds have germicidal activity, and it may well be that one of the detergents of the future will be cationic, and germi-

One of the properties endowed to fabrics by the textile mills is a soft feel, or 'hand.' This is done by means of certain chemicals which make a fabric much gentler to the touch. Most of these compounds are cationic, and here again it is possible that cationic agents may find a future in this field. Certainly, synthetic detergents which have this added property will be developed over the next 50 years.

Another type of synthetic detergent which has been known in the past, but has been rather unsuccessful, has been the salt-water detergent. It is confidently predicted that in the future greatly improved synthetic detergents will make their appearance and will be used in salt water. This will be particularly useful on ships and in summer resorts.

Very recently there has been described a treatment for fabrics, a rinse, which minimizes the soiling of the fabric during use, and which causes the removal of soil much more easily after the fabric has become dirty. This treatment is by rinsing with a solution of CMC and was described in a recent release emanating from the Institute of Textile Technology. The present status of this treatment would make it appear too expensive, but it is not unreasonable to believe that a synthetic detergent itself incorporating this property may be developed in the next 50 years. It would certainly have enormous consumer appeal.

In the next 50 years we may expect to see types of synthetic deImprovements in detergents of the future include bettering the conventional types we know today; added properties such as mildew-proofing and moth resistance; and changes in their physical forms.

tergents built for special purposes. We have on the market already certain synthetics which are especially recommended for automatic washing machines, as they produce low foam, and therefore do not impede the mechanical action of the washers. Many other detergents of this type may be expected, especially as the number of automatic washers in the country increases.

Ultrasonic Washing

THERE is on the horizon an entirely new type of automatic washing machine. Certain investigations are being carried out at various places in the world on the use of ultrasonic waves as the mechanical force for removal of dirt from fabrics. In Australia an ultrasonic washing machine has already been offered to the public; evaluation of the machine does not show it to be particularly effective, but it is probably a forerunner of more effective types. Certainly new types of detergents will have to be built for such types of washers.

Another boon to the housewife rapidly appearing on the American scene is the mechanical dishwasher. It is necessary to develop synthetic detergents which will be effective for this application. At the present time certain inorganic salts are widely used, although there is on the market a very superior product based on a synthetic detergent and still further improvements may be expected.

At the present time, synthetic detergents are offered in bead form and as liquids. There are several liquid dishwashing compounds on the market, and others may be expected to come. The market for this type of product may grow substantially in the next fifty years.

Still another form in which detergents may be sold is as pellets. They have the advantage of furnishing an accurate gauge of dosage. Many attempts have been made in the past to produce such pellets, but none has been commercially acceptable. However, it is predicted that in the future this physical form will command considerable interest.

Another possible future form of synthetic detergents is as aerosols in pressurized containers. Evidence has accumulated already that shaving creams and shampoos may be future commodities of the aerosol variety. These would be dispensed in pressure containers and one would merely push a button to supply enough foam for a shave or shampoo. To extend this to household use for clothes washing, is purely an economic matter. It is not too much to believe that in 50 years this idea may find acceptance in a rather limited way, if the cost can be reduced substantially.

Synthetic detergents have not been used extensively as toilet soaps in bar form. A very superior synthetic detergent in bar form is on the market today, but it has limited distribution. However, in the future such a product appears to be a definite probability.

Soap Is Fine Detergent

THIS, then, concludes the predictions on possibilities for detergents of the future. One last word, however, should be mentioned . . . soap, in very soft water, is still an exceptionally fine detergent, and it is believed that if as much effort had been made to improve soap as has been devoted to the development of synthetic detergents, vastly improved soaps would be on the market today. Certain sequestering agents (one of which is

ethylene diaminetetracetic acid) are known which, if they were sufficiently economical, could be added to soap, and would make it competitive with detergents in waters of all degrees of hardness. It is predicted that in the next 50 years very cheap sequestering agents will be developed and will find enormous outlets for mixture with soap. It is predicted further, however, that in the long run synthetic detergents will probably overcome packaged laundry soap and at the end of the next half century very little soap will be used, except perhaps as bar toilet soap.

More than 20 theories of odor have been advanced, none of which is considered wholly satisfactory. A new theory, which seems to incorporate the best of these, postulates two prerequisites for a substance to be odorous: (1) It must be volatile; and (2) it must have a molecular configuration, in part at least, complementary to that of certain sites on the olfactory receptor system. If the further assumption is made that there are a small number of fundamental odors, each with specific receptors, the theory appears to account satisfactorily for the observed olfactory phenomena. Fatigue experiments indicate that there are only a few fundamental odors.

Given these premises it is possible to account satisfactorily for (1) some substances being odorous and others not; (2) the large number of different qualities of odor-concentration and volatility mainly determining intensity; (3) well known phenomena such as a change of odor on dilution, fatigue, and masking; (4) differences in odor between isomers; (5) uniformity of olfaction in man and differences in sensitivity between man and animals; (6) many of the odorous changes, some great, some slight, due to change in molecular configuration; and (7) the enhancement of odor that unsaturation usually produces, while not precluding the appearance of odor among saturated compounds. This new theory is believed to constitute a unification and simplification of the conclusions reached by many workers. R. W. Moncrieff, Perfumery & Essen. Oil Record 40, 279-85 (1949).



Sales Power in Merchandising

By Frederic Schneller

General Merchandise Manager Lever Brothers

Based on a talk given recently before the Advertising Club of New York.

HAT is merchandising, and how does it differ from advertising? Advertising is the first half of the sales cycle that stimulates interest and moves consumers toward our brands—with an overall objective of consistent brand loyalty. Merchandising, on the other hand, is the second half of the sales cycle that uses a special selling inducement to move our brands closer to the consumer. Its immediate objective—plus sales in the psychological zone of impulse buying.

And speaking of buying—here's what one authority gives as the eight reasons why a woman buys anything:

1. Her husband says she can't have it; 2. It makes her look thin; 3. It comes from Paris; 4. Her neighbors can't afford it; 5. Nobody's got one; 6. Everybody has one; 7. It's different; 8. 'Because'.

You can see from this—selling a woman anything is quite an assignment. To do it effectively at Lever Brothers, we operate our merchandising as a counterpart to our advertising department—man for man—brand for brand—and with the cooperation of the same advertising agencies. Our target for merchandising is that half of the uncompleted sales cycle which I like to call "The Twilight Zone of Indecision"—the psychological impulse buying area towards which our merchandising is directed.

Ten years ago only 26 per cent of the nation's grocery store business was done on a self-service basis. Today 67 per cent of the whole food store volume of \$24,750,000,000 is done

with nearly automatic shelf selling." Our advertising has done a job of meeting this changing circumstance by building the kind of brand loyalty which accounts for the greatest share of our volume. But where there is no brand loyalty, or where brand loyalty is weak, Mrs. Housewife is faced with the obvious question, "What brand shall I buy?"

Good merchandising penetrates this area in two different ways. (1) Getting our brands off the shelf into easy to see, self-selling floor displays that always add up to plus sales. (2) Activate purchase with special inducements other than cut-price. How big is this sales factor? In the food and grocery-store field—it is very big!

Two-hundred million people walk into food stores in this country every week! Half the items they buy—one hundred billion units a year—are based on decisions made after the customer enters the store. Less than one out of four carries a shopping list. Actually—76 per cent use no shopping list at all.*

It is in this field of selling that we feel sure merchandising can and must play an important part—not as a substitute for advertising—but as an important partner of advertising to make both our advertising and our sales-distribution dollars pay off with a higher percentage of returns—returns measured at the cash register.

Here's what I mean! The other morning at breakfast—I whistled, pounded the counter, and waited in vain, for my second cup of drug-store coffee. I don't do it this way any more. I found a way to get it quick! As a busy fountain clerk breezed by, I handed her the empty cup. She impulsively took it—quickly filled it—and returned beaming with the satisfaction of her prompt service. Psychologically—soap customers are not much different. That's why we give them a merchandising inducement that impulsively and instinctively takes up where the advertising leaves off.

We make it easy, with a good merchandising inducement, to get the goods into *their* market basket!

There are no Hooper ratings or Neilsen indices to measure merchandising selling. But we do know it moves large quantities of goods directly from shelf to cash register—and from our experience, gives us more direct, traceable returns per dollar of expenditure, than anything else we do.

I wish I could give you a yardstick by which all merchandising could be measured-but I can't. Each merchandising activity, depending upon its objective, sets its own standards of costs. Some of our mail premium offers, with the advertising included, have cost us as much as 20 cents a return. Our contests have sometimes run slightly higher. In our experienceneither a contest nor a mail premium has ever created enough direct box top return movement for our brands to warrant their cost. We do use both of these merchandising vehicles, but with other objectives in mind.

In almost every instance, we develop a promotional tie-in for con-

^{*} Progressive Grocer

test and mail premiums that includes valuable objectives other than direct box-top returns.

Our recent "Lux Girl Contest" is an example. With the cooperation of 161 CBS Lux Radio Theater of the Air stations-we ran 161 local contests to find America's most beautiful 15year-old Lux girl. The objective of the contest was primarily to merchandise the show to both the grocery trade and the American family with the large amount of local publicity which we knew we would obtain. Tie-ins with each of our cooperating CBS stations, 20th Century-Fox star June Haver, and Cole of California, made us sure of our objective, regardless of the number of ballot returns for the local-level voting.

James Barnett, our vice president for advertising, subsequently created a local interest advertising campaign by using pictures of the contestants, with a movie star, in "Lux" toilet soap advertisements. Our publicity was climaxed by a two-page editorial spread in *Life*.

Our "Swan"-Care offer of last year was equally unique. It was based on a broad humanitarian need, and as such had tremendous public appeal. We decided to offer to send one bar of "Swan" overseas to Europe, for every two wrappers sent to us. The whole plan was operated under the auspices of Care, Inc. (Cooperative for American Remittance to Europe, Inc.). For the first time, more than a million children abroad were to get soap, a rich man's luxury in war-torn Europe.

Most of our merchandising appropriations for this activity were turned over to our public relations department. The nation's press received our plan enthusiastically. Nothing like it had ever been done before. The editorial comment and endorsement were overwhelming.

Church groups throughout the nation spread the word. Labor leaders and papers endorsed the movement. Tens of thousands of grocers set up wrapper collection boxes in their stores. Many stores offered bicycles for winning collections of "Swan" wrappers.

Connie Mack, and other big league leaders, had "Swan" days for children—a free baseball ticket for five "Swan" wrappers. The tie-ins and publicity were endless. We ended the campaign by shipping more than a million and a half bars of "Swan" overseas.

We tried to be equally as original with a recent "Rinso" premium. Not finding anything on the premium market that gave us the tie-in value we so highly desire for our premiums, we designed a washday clothespin apron for "Rinso," using the product's well-known green and yellow for our colors. Our promotion emphasized the apron's washday use and, we believe, gave us a lot of by-product reminder value in hundreds of thousands of homes where we wanted "Rinso" to remain as the favorite washday soap.

When we wanted to get mass displays on four of our products in many of the 250,000 grocery stores our salesmen call on, it took us nearly six months to develop and test the appropriate vehicle. With the final selection of a three-quart aluminum sauce pan, appropriately labeled, and filled with "Lux Flakes," "Rinso," "Lifebuoy" and "Lux Toilet Soap," all at a combination value price—we had reached our objective at long last.

For the consumer—to influence her impulse buying and to penetrate the known Twilight Zone of Indecision on what brand to buy—we had a practical home item. A three-quart sauce pan, filled with soap, all for \$1.35—with a quickly identifiable and visual value of at least \$1.50 in the pan alone.

For the grocer—we had found and tested a way for him to sell more of our products, four at a time—with his regular profit included on every item.

In addition to selling our products four at a time, with four soap profits in one unit sale we made his inducement on our merchandising vehicle even greater. For his investment in the aluminum ware, we gave the grocer a greater margin of profit than he was able to make on any soap, including ours. This strategy was an extra inducement to get his soap department dollars invested in our premiums to move our products. The acceptance was gratifying. Two million pans wouldn't take care of the orders our divisional managers wanted to place. We settled for less to confine it to two or three week-ends of selling.

But we did merchandise our products four at a time, not in hundreds, not in thousands, but in millions-at a cost completely self-liquidating except for the expense of store display material. This low cost effective merchandising is currently repeating itself with "Spry." We are presently doing about the same thing with an aluminum fry pan, a three-pound can of "Spry," and one of "Aunt Jenny's" famous cook books, at a combination value price of \$1.59. The same techniques and strategies apply. We plan to make a million wives better cooks with three-million pounds of "Spry"-merchandised in a way that will make new friends as well as plus

I could go on to tell you more—of our search for the new, the unique, the appropriate merchandising vehicle for each and every one of our merchandising problems—and the tests we conduct to make our plans as effective as possible.

But the story would be pretty much what you have already heard. It is our obligation to offer grocers

(Turn to Page 157)

Merchandising...a special selling inducement to move brands closer to the customer, takes up where advertising leaves off. It is a big factor in self-service, food, grocery stores. HARD water soap may be described as one which will lather freely and clean effectively in hard water areas. Similarly, salt water soaps, also known as marine soaps, find their greatest use on ships where fresh water is scarce and salt water must serve for washing purposes.

Today, such soaps are finding keen competition in the synthetic detergents. These non-soap cleaning agents have the advantage of remaining unaffected by the calcium, magnesium and other hard water salts which react with and cause the precipitation of ordinary soaps. As was pointed out (1) a few months ago,

is being done to develop a detergent bar that will meet public acceptance for general toilet use or for laundry and other household purposes. At the same time, as is evident from the technical and patent literature, improvements are constantly being made in the production and performance of soap-based bars and cakes for hard water and salt water use.

The nature of hard water and its influence on soap consumption and efficiency have been discussed in detail in previous publications (2, 3). Nonetheless a brief review is in order at this time. Hardness is due to the presence of the dissolved salts of calcium, magnesium, iron, and other heavy metals. These form insoluble compounds with soap and prevent it from performing its normal cleansing function. Formerly, hardness was expressed in degrees or grains per gallon, but it is now described as parts per million (ppm) of water, as calculated to calcium carbonate. Thus, water with a hardness of less than 60 ppm. is considered soft, while that ranging from 121 to 180 ppm. is classed as moderately hard. Water with a rating of over 180 is called hard (4).

Surveys have shown that there is a sharply marked variation in the hardness of the water in different parts of the country. For example, the surface water supplies of the Atlantic coast and the Pacific Northwest are described as soft, while those of the Midwest are hard. This is illustrated by statistics (5) which indicate that the average hardness of the water supplies of Worcester, Mass. and Portland, Ore. are 11 and eight ppm., respectively. At the other extreme are data which show that the hardness of the water supplied to Dayton, O. is 368 ppm.

Figures of this kind are not absolute because the degree of hardness in local waters may be influenced by a number of factors. Not only may the hardness vary from community to community, but in large cities it may vary with the sources of supply. Seasonal variations may also occur and periods of drought will increase the hardness while wet seasons will lower it. In general, it may be said that water from large lakes, reservoirs and large

Hard Water Bar Soaps

By Milton A. Lesser

sellers of synthetic products will undoubtedly concentrate their major efforts in the hard water sections of the country, where they have had the most success. In contrast, continued preference for soap has been indicated in the soft water areas where only about 10 per cent of the packaged soap dollar has gone to synthetics. However, this percentage increases with the hardness of the water and, in the hard water cities, synthetic detergents are said to have about split the market with soap products.

This, it should be noted, holds true with respect to packaged products, like granules and powders. In the case of bars and cakes, however, soaps still hold the dominant position. Of course, this may be attributed to the fact that a generally acceptable, competitive bar of synthetic detergent has yet to be developed. The few products of this type now on the market are rather specialized cleaners for use on soap-sensitive skins or in the presence of dermatologic conditions where soap is contraindicated.

Obviously, considerable work

capacity wells remains fairly constant with respect to hardness. Water from rivers, small lakes and low capacity wells will show hardness fluctuations.

Of course, the factor of hardness is considerably greater with sea water. As noted by Van Zile and Borglin (6), the problem of washing in sea water is that of getting sufficient soap into solution in the presence of 20,000 ppm. of salt and from 12,000 to 13,000 ppm. of calcium and magnesium salts. Worth noting in this connection is the synthetic sea water used for testing scores of detergents for their effectiveness in sea water laundering (7). This is made by dissolving the following salts in distilled or softened water to make one liter of solution:

Magnesium chlo	ri	ic	ì	e					
(MgCl ₂ -6H ₂ O)		*			*			11.0	Gm.
Calcium chloride	-								
(CaCl ₂ -2H ₂ O)					×		*	1.6	Gm.
Sodium sulfate .						*	×	4.0	Gm.
Sodium chloride								25.0	Gm.

In testing the washing agents sufficient detergent is added to the synthetic sea water to make a 0.1 per cent solution. The mixture is shaken vigorously and then examined for evidence of appreciable insolubility or precepitation. Products showing such effects are at once eliminated and the remainder subjected to further tests.

Three Main Types

THE approach to the manufacture of bar soap that will serve satisfactorily in hard water and in sea water has followed three main paths. Often, however, the dividing lines are not too clear and the categories may overlap. First are the soaps made entirely of or based chiefly on coconut or palm kernel oils. The standard salt water soaps and the superfatted hard water soaps fall in this group. Second are combinations of soap with various alkaline builders and, more recently, with various sequestering agents. Most important here are the hard water white laundry soaps, but other bar soaps also enter this category. Thirdand of considerable interest-are mixtures of soap with non-soap or synthetic detergents, with or without variout adjuncts. This class is represented

by the all-purpose bar developed during the war.

Extensively used for toilet purposes in hard water districts are soaps made by the cold process from coconut or palm kernel oils (8). Such soaps contain little if any alkaline builders and are usually superfatted to counteract the irritative tendencies frequently associated with soaps based on high lauric acid content oils. Sometimes the term "all water soap" is used in connection with such products. This, it has been explained (9), is to indicate that the value of such soaps is not limited to hard water but that they are useful in soft water as well.

Because of the ready solubility of coconut oil or palm kernel oil soaps and the profuse lather which they give in almost every kind of water, they form the basis of the standard salt water soaps (10). Although a good proportion of such soap is made from pure coconut or palm kernel oil or their mixtures, it is quite common for such products to contain various proportions of alkaline builders, like sodium carbonate and sodium silicate. It has also been pointed out (6) that the moisture in such soaps greatly accelerates the process by which the detergent is brought into solution. Hence a salt water soap should carry all the moisture possible.

These points are well in evidence in the Federal Specification (P-S-611a) and the A.S.T.M. Specification (D593-42) covering salt water soaps. According to the government standard, a salt water soap should comprise a product well made from pure coconut oil fatty acids, pure palm kernel fatty acids, or a mixture of these materials, and caustic soda. It must be entirely soluble in both sea water and fresh water and also make a suitable lather. The soap must be light-colored and free from objectionable odor. From a consideration (6) of the detailed analytical requirements, such a soap might consist of about three per cent of salt (sodium chloride), three per cent of soda ash, 39 per cent of anhydrous soap and 35 per cent of water. No rosin, sugar or foreign matter may be present.

Although such soaps may be

made by the semi-boiled process, they are usually produced by the full-boiled or settled method (8). Thomssen and McCutcheon (10) have described a modification of the full-boiled process for making coconut oil marine soaps in which glycerine remains in the soaps. This brings to mind Snell's (11) statement that salt water soaps are basically cold-process coconut oil soaps. In England, Vallance (12) also lists marine or salt water soaps among the popular products made by the cold process.

Sodium Silicate Used

OCCASIONALLY in the production of hard water and marine soaps, coconut oil and similar tropical nut oils do not comprise the sole ingredients of the fat charge and both sodium and potassium hydroxide are used as the saponifying agents (13). An example of the latter is given by Bennett (14) in the following formula for a salt water soap containing a substantial proportion of sodium silicate:

	pe	er cent
Coconut oil	 	28.2
Caustic soda (30°Be.)		
Caustic potash (30°Be.)	 	8.5
Sodium silicate	 	28.1
Water		7.0

The same source provides a formula for a sea water soap in which another fatty ingredient is combined with the coconut oil. This consists of:

Coconut oil (or fatty acid)	
Castor oil fatty acid	
	,
Caustic soda (38°Be.) 15	}
	i
Water 10	,
Sodium silicate (36°Be.) 25	i
Potassium carbonate solution	
Totassium carbonate solution	
(30°Be.) 8	ŧ.

Of kindred interest is a process described in a foreign patent (15). In this method soaps for use in sea water are made by saponifying a mixture of fatty acids with molecular weights below 210 (e.g., lauric acid) with fatty acids of high molecular weights. Castor oil fatty acids are cited as examples of the latter type of fatty components.

In their recently published text, Thomssen and McCutcheon (10) point out that, in past years, the yellow laundry bar was the most popular of laundry soaps. Today, however, its sale is exceeded by the white laundry bar. This statement is borne out by statistics of the Bureau of the Census (16). According to the latest figures supplied by this government organization, in 1947 there was a production of 406,561,000 pounds of white bar soap for laundry and household use. Production of yellow bars amounted to 358,329,000 pounds during the same period.

White Laundry Soap

IN DISCUSSING the two kinds of laundry bar soaps, Smither (8) remarks that in order to provide soaps that will lather freely in hard waters, manufacturers have increased the quantity of alkaline builders and have substituted coconut oil for the rosin in yellow laundry soaps; producing the so-called white laundry soaps. According to Thomssen and McCutcheon, white laundry soap is made as a boiled soap, the kettle being charged with a medium light tallow and coconut oil, plus other oils and fats, depending on market conditions. Coconut oil comprises about 30 per cent of the charge, the rest being tallow and grease.

Sodium silicate is undoubtedly the alkaline builder most commonly used in the production of these white laundry and household bar soaps. It is said (17) that silicates of soda were added to soaps before 1835 and that soaps containing substantial quantities of this compound became popular in this country during the Civil War. Over the years, sodium silicate has proved itself to be a valuable addition to soap, serving to increase the detergent and water softening properties. It is especially useful in soaps containing coconut oil which are intended for use in the hard water sections of the country.

In his comprehensive review, Merrill (17) states that silicates of soda reduce the amount of soap required to form suds in typical hard waters. This, he notes, results in a decreased soap consumption under many practical conditions. The effectiveness of the silicates as water softeners varies considerably, however, with the type of soap, type of hardness, temperature and presence of added ma-

terials. The reduction in soap consumption, he explains, results mainly from the preferential reaction under some conditions of the silicate rather than the soap to form a fine well dispersed calcium silicate. The precipitate formed by hard waters with silicates is of such small particle size and so well dispersed as to be apparent only as a rather stable turbidity which does not adhere to fabrics.

In discussing the procedure for making white laundry soaps, Thomssen and McCutcheon state that after the soap has been made by the cold-boiled process, it should be allowed to settle in the kettle. Then 700 pounds of the base soap are pumped into the crutcher and 400 pounds of sodium silicate plus four to eight ounces of perfume are crutched into the base. When this mixture is dropped into the frame, the temperature should not exceed 160° F., but may be as low as 140° F. After the soap has cooled in the frames, it is stripped, slabbed, cut into bars and pressed in the usual way. It is observed that the proportions of soap and silicate recommended in this method will produce a cake containing about 45 per cent of anhydrous soap. It is possible, however, to reduce this to 25 or 30 per cent by decreasing the amount of soap base and increasing the amount of silicate of soda.

Well worth citing are European studies (18) on household soaps made with sodium silicate. For this purpose, soaps containing 50 per cent fatty acids and nine per cent sodium silicate were made by stirring grain soap with 20 per cent of sodium silicate (47 per cent) at 80° C. The pressed bars showed no deformation nor did they display any internal or external separation of electrolytes during the three-month test period. As compared with commercial curd soaps, the bars were normal with respect to loss in weight on drying and increase in hardness. The use of the silicate soap for washing in hard water was found to result in savings up to 20 per cent of the fatty acids used in the softening of water and neutralizing the acid impurities in clothes.

As was previously indicated, sodium silicate also finds frequent use

in the formulation of marine soaps. Authorities (10) in this field have pointed out that coconut oil soaps designed for use in salt water are often filled with sodium silicate, with or without the addition of soda ash. Coconut oil soaps, they note, will take a high percentage of builders, will retain a high percentage of moisture and still form a firm soap. Hence, there are no marked difficulties in filling coconut oil soaps in the manufacture of salt water soaps.

Sodium carbonate is a useful addition to soap to increase its water softening and detergent properties. Trisodium phosphate provides a similar action. Borax also finds use, presumably as a water softener.

Of considerable interest are studies on the comparative effects of various builders on the efficiency of soap in hard waters. In Canada, Foster, Roberts and Brodie (19) studied the effects of sodium carbonate, sodium metasilicate, tetrasodium pyrophosphate and sodium hexametaphosphate in water having a hardness of 300 ppm. Each builder showed great watersoftening power and in each case the reaction with the hardness was immediate. The minimum concentration required for greatest softening action varied from 0.30 Gm. per 100 cc. for sodium hexametaphosphate to 2.75 Gm. per 100 cc. for sodium carbonate. Residual hardness from maximum softening varied from one ppm. for tetrasodium pyrophosphate to 15 ppm. for trisodium phosphate.

In 1942, Bolton (20) reported investigations of the ability of various silicates, phosphates, borax, soda ash, and caustic soda to reduce the amount of sodium stearate or oleate required to form "permanent" suds in a synthetic hard water. He found that all of these alkalies, with the exception of borax, decreased the amount of the soap required to form permanent suds. Both silicates and phosphates formed well dispersed fine flocs with the hardness rather than hard lime-soap curds such as were obtained with the caustic soda and soda ash.

Much more recently in work to cover other soaps of individual fatty acids, Dedrick and Wills (21) made similar studies of the effect of such builders on sodium myristate, laurate and palmitate and on a commercial kettle soap. They also observed that both silicates and phosphates may be employed to prevent the formation of hard lime-soap curds. However, they found that the adverse effect of caustic soda and soda ash was not as evident with soaps of lower molecular weight.

In these tests, the complex

phosphates rated high for their ability to combat the effects of water hardness. For many years it has been known that compounds like sodium pyrophosphate, so-

dium hexametaphosphate, tetra-sodium pyrophosphate, exert an efficient "sequestering" effect. Through this action they "dissolve" or prevent the precipitation of insoluble calcium and magnesium soaps by forming a water-soluble complex compound which is but slightly ionized.

Hence it would seem obvious that these phosphates would make excellent builders for hard water bar soaps. However, as pointed out by Snell (11), while these complex phosphates are used as builders in soap beads and granules, it is very difficult to incorporate them satisfactorily into cake soaps. Van Zile and Borglin (6) have explained the difficulty by pointing out that the quantity of phosphate required is quite large compared with the amount of soap; making it almost impossible to use such a mixture for producing a composition in bar form.

In their (6, 22) approach to the solution of this problem, it seemed desirable to add a non-crystalline protective agent which would allow a reduction in the quantity of builders necessary for the protection of the soap in hard or salt water. They found that an excess of a resinate of an alkali metal, such as sodium resinate ("Dresinate," Hercules Power Co., Wilmington, Del.), would solubilize calcium and magnesium resinates. Since the resinates offered desirable protective and detersive properties and

aid in production of a smooth soap bar, their use was thoroughly studied.

Salt Water Soap

ONE outcome of these investigations was the granting of a patent to Van Zile (23) for methods of making salt water soaps. According to one example from the patent such a soap can be made by stirring 33 parts of 41° titer tallow soap with 34 parts

The increasing popularity of synthetic deter-

gents in hard water areas, and in some soft

water areas as well, is forcing intensified study

of agents that facilitate the lathering of soaps.

makes use of alkali metal salts of ethylene diamine tetracarboxylic acid and similar compounds as additives to improve the efficiency of soaps in hard water. Kroll and Weisberg (28) make use of other sequestering agents, as in the following example from their patent:

Over the years, various other methods have been proposed (29) for improving the efficiency of bar soaps in hard or sea waters. Not so long ago, for instance, it was

advocated (30) that a water-soluble alkali lignin be mixed with soap to form cakes, flakes or powders capable of use in hard water without forming insoluble lime soaps. More recently, it has been claimed (31) that the presence of guanidine stearate helps to maintain calcium and magnesium soaps in a dispersed state and thus reduces scum formation in hard water. An example of its utility is given in a patent (32) describing the manufacture of a solid, unfilled, all-soap product containing one to five per cent of guanidine stearate.

With the outbreak of World War II new problems came to the fore. Because of the global nature of the conflict it became necessary to provide the armed forces with a detergent bar that could function under as many different conditions as possible. The problem was further complicated by the fact that supplies of coconut oil and other tropical nut oils were greatly curtailed. Naturally, investigators turned toward synthetic detergents for the answer. However, the solution was not an easy one.

Bar Form Synthetic

PORTUNATELY some anticipatory work had already been done. For example, Sunde (33) mentions that T. A. Werkinthin of the Standards and Test Section of the Bureau (Turn to Page 153)

of water at 180° F., and then adding 16.5 parts of dry sodium resinate and 16.5 parts of tetrasodium pyrophosphate. When smooth in texture, the soap is poured into frames, allowed to solidify and cut into bars.

Another approach to the problem of taking advantage of the efficient sequestering action of phosphates in bar soaps was offered by Bornemann and Huber (24). According to their patent, a sodium soap of a fatty acid normally precipitated by calcium salts in water, such as a laundry soap, is combined with up to 15 per cent of sodium tripolyphosphate to inhibit such precipitation. A suitable proportion of water is also present to permit the formation of a bar of soap that is stable against frosting.

The efficient action of the organic sequestering agents, such as the polyamino carboxylic acids, also finds employment in the production of bar soaps that work effectively in hard water. Like the phosphates, these organic compounds (of which several types are available commercially) to all intents and purposes effectively remove calcium and magnesium ions from solution and render them unavailable for chemical reaction with soap. (25, 26)

Several methods for using these agents in the manufacture of hard water bar soaps are given in patent sources. Bersworth (27), for example,

HE election of Joseph Keho, president of Dorothy Gray, Ltd., New York, as president to succeed Charles A. Pennock, head of Hudnut Sales Co., New York, who has served two terms, was among the highlights of the 15th annual convention of the Toilet Goods Association, held at the Waldorf-Astoria, New York, May 16-18.

Philip Smith of Yardley of London, Inc., New York, was chosen as treasurer to succeed Ralph P. Lewis of Harriet Hubbard Ayer, Inc., New York. Among those elected as directors were: A. E. Johnston of Colgate-Palmolive-Peet Co., Jersey City, N. J. and Guy P. Rocherolle of Roger & Gallet, New York, for three year terms; Ralph Lewis, for two years, and Edward J. Breck of John Breck Co., Springfield, Mass., for one year. Fritz Lueders of George Lueders & Co., New York, and Roy L. Murphy of T. G. Holmes Co., Chartley, Mass., were named as directors representing associate members.

Also newly elected were: Jean Despres of Coty, Inc., New York, vice-president, succeeding Mr. Keho; and the following directors for three year terms: J. I. Poses of D'Orsay Sales Co., New York; Richard Salomon of Charles of the Ritz, Inc., New York; C. A. Mooney of Lentheric, Inc., New York, and L. B. Whitehouse of Morton Manufacturing Corp., New York.

Departing from a custom of previous years' of having TGA officials give individual reports of their activities, a panel composed of the following answered prepared questions read by the moderator and those asked from the floor regarding various phases of the association's activities: S. L. Mayham, executive vice-president; H. D. Goulden, scientific director; Hugo Mock, general counsel; F. Weaver Myers, Washington, D. C., counsel; and John P. Currie, labor relations counsel. Gail B. Selig, California counsel was scheduled to participate but was unable to attend on account of illness in his family. Herman L. Brooks, honorary chairman of the board and former T.G.A. president, presided.

The panel question and answer session, was presented on the first

morning of the meeting, May 16, following opening remarks by T.G.A. president, Charles A. Pennock. He welcomed those present, particularly the press, which he was gratified to see represented so well. Mr. Pennock also welcomed wholesalers and retailers, expressing the hope that more of the latter would find it convenient to attend in the future. Suppliers were thanked by Mr. Pennock for, as he put it, "running the affair." He then called on Peter Powell of Yardley,

various members participating and describing the functions of each.

Questions And Answers

Among the questions and answers covered by the panel were the following:

Q. "I have registered a trade mark on a product sold in 30 states. Do I have protection in other state as well?"

A. "Under the Lanham Act

T.G.A. Elects Keho

Dorothy Gray head elected president of Toilet Goods Assn. at 15th annual meeting at Waldorf-Astoria, May 16-18. Panel discusses problems.

Ltd., Toronto, Canada, president of the Toilet Goods Manufacturers' Association of Canada. Following an invitation to American manufacturers to attend the Canadian group's annual meeting on June 15, Mr. Powell in troduced the following Canadian representatives at the meeting: T. L. Goznell of Zonite Products Corp., Toronto; Frank Cleary of Hudnut Sales Corp., Toronto; Roy C. Lewis of Roy C. Lewis, Ltd., Montreal; G. F. Bullock and Fred Crowhurst of Rexall Drug, Ltd., Toronto; Arthur Laverty, secretary-treasurer of the Canadian association and Dr. Thomson of the Canadian Food and Drug Dept., Toronto.

The treasurer's report, read in the absence of Ralph P. Lewis by Stephen L. Mayham, executive vicepresident, showed the association to be in the black for the first time in some years.

The panel review of association problems and activities opened with Mr. Mayham introducing the (1946), Yes; before it, no. Constructed notice applies in all states. Under previous Act (1905), protection was granted only in states where the mark was used."

Q. "What has the committee on cosmetics of the American Medical Association done since the discussion of its formation at last year's T.G.A. meeting?"

A. "Since then few things have developed. Unless your products fall within the scope of the hyper allergenic stay away from AMA. Some companies have registered with AMA, although few in the non-allergenic field have done so. The program has fallen flat and the AMA is not equipped to do the job. Originally it was said to be the purpose of the committee to teach doctors something about cosmetics. Very little has been published and what has is merely a rehash of Federal Trade Commission reports. I suggest that the Toilet Goods Association do something to educate doctors about cosmetics. The AMA is too busy

to do the job for cosmetics, since the association has so many problems within its own organization."

Q. "How far are pension demands to spread?"

A. "Large companies will continue to be the object of pension demands. I believe general demand for pensions is sloughing off a bit. Pressure will not be as great on small companies. However, all companies should survey their wage set ups, the efficiency, duties, length of service,

properties shown. The work published will be a critical review."

Q. "Should the Toilet Goods Association pool its interest in the excise tax with other groups for repeal of these wartime excise levies?"

A. "No. By representing everyone no one is represented. Stephen Mayham was wise not to hitch the lot of the TGA with all others in efforts to reduce or repeal wartime excise taxes. The merits of the excise tax vary. Some are appealing, some are

A. "We believe it should be switched to the Food and Drug Administration, and all reasons for our earlier opinion still obtain. We feel the toilet goods industry would be better off under the FDA, even if that body followed the rules of the F.T.C. The FDA is a long established, well organized agency with a good deal of experience, and is reasonable in its rulings."

Q. "Is a deodorant a drug or a cosmetic?"



JOSEPH KEHO



S. L. MAYHAM



RALPH P. LEWIS

attitude, etc. of all employees and grade them accordingly. It is necessary to check and examine employee performance frequently."

Q. "How is the Yale research program progressing?"

A. "Satisfactorily. 5,000 references have been located. Seven people are working on the program and a monograph is being written, which is about 75 per cent complete. It will be finished in three months, and four to five months later will be published."

Q. "What is the purpose of the investigation?"

A. "To search the world scientific literature for all reports on the effect of all cosmetics and soap on the human body. Also, the classification of 1200 raw materials used in cosmetics and toilet goods. The work is being undertaken at the Yale University Research Laboratories of Applied Physiology. The 1200 raw materials being investigated will be listed alphabetically, with effect on skin, toxicity data, chemical and physical

more burdensome than others. The tax on cosmetics bears heavily on working girls. It has also had a deterring effect on sales and production. The deterrent effect is more pronounced on some items than on others. In the case of cosmetics it is very burdensome fo the consumer since she pays it frequently, whereas in other cases, say in the purchase of an automobile the tax is not paid often and consequently the consumer hardly is aware of it. The association felt that in its fight for repeal better results could be obtained by individual action rather than by 'thundering herd' activities. Felt the tax on each commodity should be investigated on its own merits; not cut equally for all. However, this seems to be the way the plan to effect cuts is working out."

Q. "The Association once took the position that control of advertising should be in the hands of the Food and Drug Administration, not with the Federal Trade Commission. Does it still feel this way?"

A. "That depends upon the definition. If the product stops the flow of perspiration or affects the structure or functioning of the body then it is a drug."

Q. "Can it be both?"

A. "Yes."

Q. "Do I have to sell anyone who offers cash for my goods?"

A. "No."

Q. "What is the outlook for more labor activity?"

A. "Unless the CIO and the AFL get together there may be a holiday from labor activity."

Q. "What will be the effect of the Federal Trade Commission reorganization?"

A. "The membership of the commission will be more liberal now than in many years. The new men seem more inclined to cooperate with rather than to fight business."

Q. "How is a prevailing minimum wage for public contract work

determined, and what has this to do with businesses not doing government work?"

A. "Under terms of the Walsh Healy Act the Secretary of Labor determines the minimum wage rate on contracts of \$10,000 or over. The toilet goods industry is affected through its sales to Post Exchanges, etc. Usually hearings are conducted by the Department of Labor prior to setting up new minimum wage rates. At the present time an attempt is being made to prepare a new wage standard for the toilet goods industry. In setting up a new wage rate, the Department of Labor depends for information on the Bureau of Labor Statistics. The Labor Department has requested wage rate information from companies in the toilet goods industry. but it is not compulsory to give out specific information on wage rates, since it might identify a company. The T.G.A. is conducting its own survey on wages and asking that all possible information on the subject be given since the greater the number of returns the more authoritative the findings of its survey. Hearings are tentatively scheduled for June or July, and the T.G.A. is asking stronger cooperation than in the past."

Q. "If the excise tax is not eliminated this year, what are the prospects for the foreseeable future?"

A. "Congress like the courts follows precedents. These are difficult to overcome. The excise taxes always have been war or emergency levies. If the present tax doesn't come off in its entirety this year or next, it may remain in force like the tobacco and alcohol taxes."

Q. "If I follow Federal government regulations on weights and measures, do I meet all the requirements of state laws?"

A. "Yes and no. Pennsylvania has a weights and measures law which differs from the Federal law. In general, however, by following the Federal statute, you won't get into trouble."

Q. "What must I do with a new product to be sure that it is safe?"

A. "It depends on the prod-

uct; the safest course is to employ animal and clinical tests. Since some reactions do not take place immediately, it is wise to take more time in testing."

Q. "What should an unorganized company do or say on the spot if a group of its employees demands recognition as a union?"

A. "Say that the law permits their organization, but that it must be certified by the National Labor Relations Board."

Q. "What is the trend in labor demands besides pensions?"

A. "More of everything. Little more pay; fewer demands for holidays, which seemed to have reached the saturation point; accumulated sick leave; severance pay tied up with length of employment; some form of guaranteed annual wage; longer vacations for older employees."

Q. "Should other groups similar to the Fragrance Foundation be formed, or should such activities be carried on by the Toilet Goods Association?"

A. "The Fragrance Foundation has been conspicuously successful. Other similar promotion attempts have been made but without success. Join publicity by the men's toiletries group should be done."

Following the question and answer panel, C. A. Pennock, T.G.A. president, gave his president's report. In it he pointed out that the "greatest single deterrent (to the growth of the toilet goods industry) has been the excise tax." Because of the amount of publicity given efforts to repeal it, some consumers have postponed their purchases, Mr. Pennock said. He further pointed out that there is a need to promote intelligent, aggressive salesmanship among retail clerks.

Following the group luncheon, the first order of business at the afternoon session was the election of the new officers.

P. B. Morehouse, of the Bureau of Stipulations of the Federal Trade Commission, first of the three afternoon speakers was unable to be present because of illness in the family.

"Toilet Goods and the Law," the title of the address by John L. Harvey, Director of Regulatory Management of the Food and Drug Administration, Federal Security Agency, covered the classification of products coming under the Federal Food, Drug and Cosmetic Act. He was followed by Robert E. Freer, Washington attorney and former member of the Federal Trade Commission, who discussed the background of the Federal Trade Commission Act and the Robinson Patman Acz. He also commented on the recently announced reorganization and reshuffling of personnel in the Federal Trade Commission.

Donald M. Hobart, director of research, Curtis Publishing Co., Philadelphia, in a talk entitled "Selling Forces," pointed to the necessity of "manufacturing customers in sufficient quantities to consume the goods we produce." To do this he outlined a five point program consisting of the following: 1.) Study your product; 2.) analyze market; 3.) plan efficient distribution; 4.) organize and train an adequate sales organization; 5.) develop strong advertising and merchandising plans.

Adam Long Gimbel, president of Saks Fifth Avenue, New York, pointed out that cosmetics were one of the finest profit makers in a department. He urged that demonstrators be called "stylists" that in addition to keeping inventory they should be able to advise customers on their needs and wants in toiletries. He recommended the use of suggestive selling and urged that emphasis be placed on quality of product not price. While lower priced items are needed, Mr. Gimbel decried the "two-for-one" sale idea for cosmetics.

Simplification of lines was called for by the next speaker, C. C. Caruso, vice-president of Schieffelin & Co., New York. He also outlined reasons why wholesaling has not been the help to some toilet goods manufacturers that it has to others.

C. V. Browne, editor of Modern Packaging, the final speaker at the morning session, outlined the reasons why there was no Welch Award this year for the best toilet goods package. No package was worthy of the award

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Man-Hours Spent in Soap Making Increase in 1948

N 1948 almost 0.37 direct man-hour was required per 100 pounds of product for all soap operations combined 1, or 4.5 per cent more than in 1947. The rise in unit labor requirements, which occurred mainly in end-product operations, resulted primarily from reduced volume of production without accompanying reductions in the labor force.

Direct man-hours per 100 pounds of soap increased 7.0 per cent for bar laundry soap and 8.5 per cent for toilet soap. Reduced volume on these products necessitated more frequent changes in production orders and led to the introduction of special packaging in order to encourage sales. The increases reported for spray soap and soap flakes were relatively minor. Some reduction was made in the man-hours expended per 100 pounds of lather shave cream, a minor product of this industry.

A rise in unit man-hours for saponification (manufacture of soapstock) was traceable entirely to increases reported by establishments using continuous saponification processes: unit man-hours for firms using the full-boiled process did not change.

Direct man-hours per 100 pounds of output in the glycerin recovery and refining operations declined almost 4 per cent. After the reduction of glycerin prices and the relaxation of government wartime regulations requiring a high rate of recovery, manufacturers once more discarded spent lyes of low glycerin content. Processing was again restricted to higher-grade liquors which require fewer man-hours per 100 pounds of glycerin recovered.

Trends in average man-hours per unit varied for facilities group according to area of plant location. Available information indicated that the variations were mainly the result of internal operating conditions in the reporting establishments within each region.

Reductions in unit man-hours were reported for toilet soap and spray soap manufacture establishments in the western region though man-hours per 100 pounds on these products increased for establishments reporting from other regions. Similarly, establishments located in the central region reduced unit man-hours for the full-boiled saponification, while increases were noted in other regions.

Based on a report "Trends in Man-Hours Expended Per Unit in the Manufacture of Soap and Glycerin, 1947 and 1948," prepared by Lewis H. Earl under the direction of George E. Sadler, in the Bureau of Labor Statistics, U. S. Dept. of Labor, Branch of Productivity and Technological Development.

1 Direct man-hours represent approximately half of the factory total. The major proportion of man-hours in soapmaking is expended in the processing of end-products (totlet, spray, flake, and bar laundry soap) from soap stock. These operations consume over 80 per cent of factory direct labor. The saponification process and the by-product glycerin operations each require about 10 per cent of factory direct man-hours.

TABLE 1.—Trends in Man-Hours Expended Per 100 Pounds of Soap and Glycerin Products, 1947 and 1948

Type of labor, operation,		rage hours	Inde (1939= 1947 101.6		
and product	1947	1948	1947	1948	
Direct labor:					
All soap and glycerin operations			101.6	105.7	
Soap operations only	0.3524	0.3683	101.9	106.5	
All saponification processes	0.0563	0.0579	106.6	109.6	
Full-boiled saponification	0.0539	0.0538	109.9	109.7	
All soap products	0.2961	0.3104	101.1	106.0	
Toilet soap	0.6938	0.7532	100.6	109.2	
Spray soap	0.1786	0.1774	89.9	89.3	
Soap flakes	0.2320	0.2337	88.3	94.5	
Bar laundry soap	0.2562	0.2742	136.3	145.9	
Lather shave cream	1	2.5553	1	131.5	
Glycerin recovery and					
refining	0.4133	0.3979	98.7	95.0	
Glycerin recovery	0.2624	0.2581	97.7	96.1	
Glycerin refining		1	100.4	1	
Indirect labor ²	* * * *		90.1	96.9	

TABLE 2.—Trends in Man-Hours Expended Per 100 Pounds of Soap, 1947 and 1948, by Size of Plant for Selected Operations

Operation and size of plant (plant size by pounds	Aver- man-h		Inde (1939:	exes =100)
produced per week)	1947	1948	1947	1948
Full-boiled saponification:				
2,400,000 and over	0.0490	1	113.5	1
1,200,000 to 2,400,000	0.0535	1	107.0	3
Under 1,200,000		0.0796	101.3	106.4
Toilet soap:				
550,000 and over	0.5952	1	108.2	1
150,000 to 550,000		0.8726	88.5	100.0
Under 150,000		1.1532	90.8	76.3
Spray soap:				
1,250,000 and over	0.1637	1	103.9	1
Under 1.250.000	0.2054	0.2137	74.1	77.1
Soap flakes:				
350,000 and over	0.1966	0.1856	95.6	90.3
185,000 to 350,000		0.3343	96.0	110.2
Under 185,000		0.4260	52.1	55.7

TABLE 3.—Trends in Man-Hours Expended Per 100 Pounds of Soap, 1947 and 1948, by Region, for Selected Operations

		rage hours		exes =100)
Operation and region	1947	1948	1947	1948
Full-boiled saponification:				
Eastern	0.0566	0.0577	104.8	106.8
Central	0.0512	0.0474	120.6	111.6
Western	0.0514	0.0566	112.8	124.3
Toilet soap:				
Eastern	0.7098	0.7750	92.4	100.9
Central	0.6630	0.7204	123.8	134.5
Western	0.7188	1	110.4	1
Spray soap:				
Eastern	0.1495	1	88.5	1
Central	0.1846	0.1882	75.1	76.6
Western	0.2359	0.2182	110.6	102.3
Bar laundry soap:				
Eastern	0.2197	1	120.1	1
Central	1	1	1	3
Western	0.3089	1	168.7	2
Soap flakes:				
Eastern	0.2136	0.2200	84.3	86.8
Central	0.3705	0.3673	89.2	88.5
Western	0.1474	1	109.5	3

1 Not shown to avoid disclosure of individual company reports.

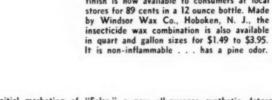
³ Eastern: Connecticut, Maryland. Massachusetts, New Jersey, New York, and Pennsylvania. Central: Illinois, Indiana, and Ohio, Western: California, Iowa, Kansas, and Missouri.

June, 1950

² Computed by applying the ratio of indirect to direct man-hours to the index of direct man-hours per 100 pounds of product on all soap and glycerin operations and establishing an index of the result.



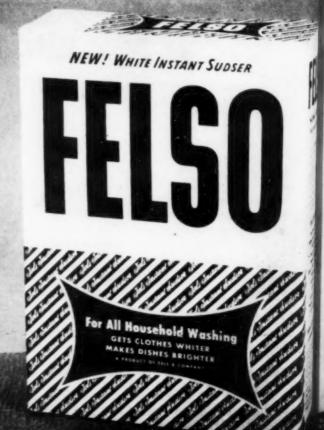
"Baker's Lathernist" shampoo, a recently developed liquid hair preparation based on a new formula, is now being distributed nationally, according to the maker, Hal Collins Co., Dallas, Tex. Packaged in six ounce, round toiletry bottles with plastic, screw-type closures. Bottles by Owens-Illinois Glass Co.



"Kare," new roach-ant killing wax floor finish is now available to consumers at local

"Erustolax," a new solvent emulsion type cleaner designed primarily for the removal of extremely oily and greasy soil found in overalls and wiping rags was announced recently by Pennsylvania Salt Manufacturing Co., Philadelphia. The product was developed at the company's Whitemarsh Research Laboratories and has been extensively field tested. It is packaged in five gallon steel pails and in 50 gallon steel drums. Initial marketing of "Felso," a new all-purpose synthetic detergent made by Fels & Co., Philadelphia, began earlier this month. Marketing is to be conducted in a doxen or more major cities during the summer. The new detergent contains the same "sunshine" ingredient added to other Fels products in 1949. It is a white, bead type detergent with a fragrant odor. The package comes printed in red, green and white.







"Cuticura Shampoo," left, is the newest addition to the famous Cuticura line manufactured by Potter Drug & Chemical Corp., Malden, Mass. The new shampoo will be sold nationally to wholesale druggists for distribution through retail drug outlets. The new product is said to be a combination of a soap and synthetic detergent. Eight-ounce "Duraglas" bottle with black molded plastic closure is supplied by Owens-Illinois Glass Co., Toledo. Valpey Press manufactures cartons.

A new gelatinous cleaner for white side wall tires is now being marketed nationally under the trade name, "Wite Wall," by Cecil H. Jarrett Co., Newton, N. C. Available in pints, quarts and gallon sizes, the preparation is said to remove a variety of stains and marks without injuring paint, rubber or tire fabric.



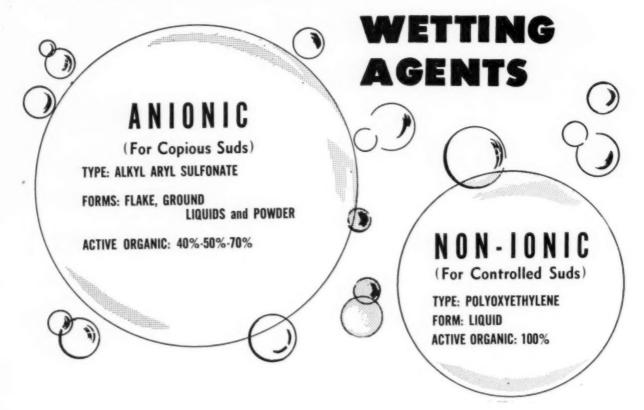




New economy size "Wizard Wick Deodorizer" designed especially for extra large rooms and retailing for 69 cents, was announced recently by Boyle-Midway, Inc., New York. The new 12 ounce size retails for 69 cents, and a smaller size (six ounce) retails for 39 cents. In addition, Boyle-Midway has announced an entirely new item: a 12 ounce bottle of refill liquid for use in either size container. The new size deodorizer was designed for beauty parlors and other large rooms.

TURNER





TURNER Detergents are characterized by rapid solubility, clarity of solution and desired absence of turbidity.

Dry forms are white in color. Hence they blend (hide) better in your finished product.

Liquid concentrates are amine neutralized and completely salt free. No filtration required.

Powdered material is remarkably free from objectionable dust.

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C-P-P Plant Under Way

The new plant of Colgate-Palmolive-Peet Co. in Kansas City, now under construction, is expected to be ready to go into operation late this fall or early in 1951, according to a statement by E. J. Reddert, chief engineer for the company, who recently completed an inspection trip to Kansas City. Construction of the new plant was started about a year ago. It will cost several million dollars and occupy one and one-half acres of ground. About 200 employees will operate the plant the output of which will be distributed throughout the southwest.

Tax on Dry Shampoos

A ruling on the taxability of dry shampoos has recently been given to the Toilet Goods Association, New York, on request, by the U.S. Treasury Department, and is covered in full in a recent TGA bulletin. In question was the tax status of dry shampoos which are a mixture in powder form of pumice, tale and magnesium carbonate, with a small percentage of perfume. Charles J. Valaer, deputy commissioner, holds that such shampoos which do not contain more than 5 per cent of saponaceous matter are subject to the retailers excise tax as shampoos under section 2402 of the Internal Revenue Code when sold at retail.

NOCS Elects Kalustian

The following officers and directors of the Northeast Oil Chemists' Society were elected at the second meeting of the group, held at the Military Park Hotel, Newark, N. J., April 25: Chairman, P. Kalustian, E. F. Drew Co., Boonton, N. J.; vice-chairman, W. A. Peterson, Colgate-Palmolive-Peet Co., Jersey City, N. J.; secretary, E. A. Sigworth, West Virginia Pulp & Paper Co., Industrial Chemical Sales Division, New York;

treasurer, H. W. Ladyn, Armour & Co., North Bergen, N. J.; directors for two years, C. V. Serbell, formerly



PETER KALUSTIAN

of Lever Brothers Co., Edgewater, N. J.; M. F. Lauro, New York Produce Exchange; directors for one year, C. V. Bacon, chemical engineer, New York; H. N. Crocker, plant manager, Manhattan Soap Co., Bristol, Pa.

At the meeting, which was attended by 92 persons, George A. O'Hare of Congoleum-Nairn, Inc., Kearny, N. J., spoke on "Latest Developments in the Drying Oil Field."

N. E. Oil Chemists Meet

A dinner meeting of the Northeast Oil Chemists' Society was held June 6 at the Building Trades Employers' Association, New York. John E. Slaughter, Jr., vice-president of Girdler Corp., Louisville, discussed "Margarine Production".

Soap Firm Incorporates

Beauti-Tone Corp., New York, recently filed articles of incorporation with the office of secretary of state, Albany, N. Y. Capital stock of the company, which is to deal in soaps, cosmetics, etc., was listed as \$25,000. Directors are: Cleota H. Anderson, New York, Elton C. Toland, Long Island City, New York, and Pearl H. Smith, Bronx, N. Y.

New Caracas Soap Plant

A new plant for the manufacture of toilet soaps has been established at Caracas, Venezuela, by Productos de Tocador, S.A. Frank Forbes, formerly manager of the soap plant in Caracas of Lanman & Kemp-Barclay & Co. of New York is general manager of the new company. Charles Heilman, also for the past eleven years with Lanman & Kemp-Barclay, is superintendent of soap making operations for Tocador. Prior to that, he was with P & G and Armour for a total of 16 years. The new company is specializing in high grade milled toilet soaps, "Jabon Joy" being one of its new products. New soaps will be added to the line at a later date.

P & G Honors Veterans

Two members of the Procter & Gamble Co., Cincinnati, organization in Dallas, Tex., recently were awarded diamond service emblems on completion of 25 years with the firm. Ben R. Kerr of the Dallas office completed 25 years April 22, and Carl W. Baldschun of the Dallas plant celebrated his 25th year of service on Apr. 24. He first joined the firm in Kansas City, going to Dallas in 1941.

New Economics Coast Plant

Purchase of a new West Coast manufacturing plant was announced recently by Economics Laboratory, Inc., St. Paul. The new plant comprises 22,000 square feet of floor space on a two and one-half acre site at Santa Clara, Calif. This is the first western manufacturing operation established by the firm. Heretofore output has come entirely from plants in Chicago and Lyndhurst, N. J. The new Santa Clara plant is located on Lafayette St. near Mathews, and has a Southern Pacific Railroad siding.

Products being manufactured at the new plant include "Super Soilax," "Soilmaster," "Tetrox," "Pan Dandy," and "Silver-Dry" for institutional food utensil cleansing, "Soilax" and "Electrasol" for home dishwashing machines, "Fun Soapthetic" and "Tumble Suds" for automatic laundry machines.

TGMA Meets June 15-17

The annual meeting of the Toilet Goods Manufacturers Association of Canada will be held Thursday through Saturday, June 15-17, at the Bigwin Inn, Ontario, Canada.

AOCS Elects Mays

John R. Mays, Jr., Barrow-Agee Laboratories, Inc., Memphis, Tenn., was elected president of the the group's annual meeting at the Atlanta Biltmore Hotel, Atlanta, Ga., May 1-3. Mr. Mays succeeds V. C. Mehlenbacher of Swift & Co., Chicago.

Also elected were: A. E. Bailey of Girdler Corp., Louisville, vice-president; H. C. Bennett, Los Angeles Soap Co., Los Angeles, and W. H. Goss of Pillsbury Mills, Inc., Minneapolis, board members; H. L. Roschen, Swift & Co., Chicago, secretary, and J. J. Vollertsen, formerly of Armour & Co., Chicago, treasurer.

The appointment of a Referee Examining Board to be composed of the following was also announced: A. S. Richardson of Procter & Gamble Co., Cincinnati, chairman; R. W. Bates, Armour & Co., Chicago; J. P. Harris, Industrial Chemical Sales division, West Virginia Pulp and Paper Co., Chicago, R. R. King, Mrs. Tucker's Foods, Inc., Sherman, Tex. Serving ex-officio is Mr. Mays, president of the A.O.C.S.

New Fels Synthetic

The addition of a new all-purpose synthetic detergent to its line of soap products was announced early in May by Fels & Co., Philadelphia. The new Fels product is to be known as "Felso." It is a white, bead detergent with a clean fragrant odor. It contains a whitening agent, and claims are made that it has less tendency than the usual detergent to cause the user to sneeze. Initial marketing of "Felso" be-



New West Coast manufacturing plant of Economics Laboratory, Inc., St. Paul, at Santa Clara, Calif.

gan early this month, and was to be conducted in a dozen or more major cities during the summer. Newspaper and radio advertising are being used, as will various types of premiums and display material. The premiums will require no trade handling according to the company. National distribution is expected to begin in the fall.

A completely new package of red, green and white, retaining the traditional double fishtail trade mark has been designed for "Felso."

United Soap Incorporates

A charter of incorporation was recently granted to United Soap and Chemical Co., Houston, Tex. Capital stock was listed at \$10,000. Incorporators are: S. D. Tinsley, L. E. Walter and William C. Kenisell.

Lever Orders Aluminum

An order for approximately a million dollars worth of aluminum ware is reported to have been placed by Lever Bros. Co. with Kewaskum Utensil Co., Kewaskum, Wis. Walter W. McKee, Lever vice-president in charge of sales, described the promotion as the biggest in the company's history. It is expected that the offer of premium saucepans in connection with sales of Lever soaps and soap flakes will move almost 5,000,000 packages in the nation-wide campaign.

A. A. Dallmann Is Dead

Arthur A. Dallmann, 57, formerly Palmolive plant supervisor at the Colgate-Palmolive-Peet Co., plant in Jeffersonville, Ind., died in a hospital there April 20, after a year's illness. Mr. Dallmann took a leave of absence about six months ago because of poor health. A native of Milwaukee, he had lived for the past 15 years in Jeffersonville, where he had moved when the Milwaukee plant of Colgate-Palmolive-Peet Co. was closed in 1934. He is survived by his wife, Rose A., two sons, Harold J. of New Albany, Ind., and James W. of Jeffersonville; two daughters, Mrs. Robert Rager of Clarksville, Ind., and Miss Janet Dallmann of Jeffersonville, and a sister in Milwaukee.

Moffat Heads Smoke Group

Eugene C. Moffat, division sales manager of the Procter & Gamble Co., Cincinnati, was elected president of the Smoke Abatement League in that city at the annual meeting recently.

Withers Joins Morton

Joseph R. Morton, president of Morton Chemical Co., manufacturers of synthetic detergents, dispersing agents and textile specialties, Greensboro, N. C., announced recently a change in corporate name to Morton-Withers Chemical Co., occasioned by the addition to the organization of John P. Withers as vice-president and secretary.

SOCMA-MCA Outing Jun. 19

The Synthetic Organic Chemical Manufacturers Association will hold its joint outing with members of the Manufacturing Chemists' Association, June 19-21, at The Monmouth, Spring Lake, N. J. The SOCMA monthly meeting will be held the afternoon of June 19th. A golf tournament is scheduled for June 20th. At dinner that evening a talk is scheduled by Maj. Gen. Anthony C. McAuliffe, Chief of the Chemical Corps, U. S. A.

Soap, Detergent Sales Rise in 1st Quarter

ALES of soaps in terms of pounds and dollars were higher in the first quarter of 1950 than in the final quarter of 1949, but were lower than in the first three months of 1949. Total volume of sales of other than liquid soaps amounted to 586,734,000 pounds, having a sales value of \$106,277,000 in the first 1950 quarter, as against 492,823,000 pounds, valued at \$87,919,000 in the final quarter of 1949. Sales in the first three months of 1949 were 614,-621,000 pounds, worth \$119,893,000. These and other figures on sales of liquid soaps and synthetic detergents were released recently by the Association of American Soap & Glycerine Producers, Inc., New York.

Sales of liquid soap in the first quarter of this year were put at 1,-225,000 gallons, worth \$1,284,000, as against 1,568,000 gallons, valued at \$1,811,000 in the final three months of last year. In the first quarter, 1949, liquid soap sales were reported as 1,-331,000 gallons, valued at \$1,515,000.

Figures on first quarter 1950 sales of synthetic detergents, based on the reports of 32 manufacturers, show a total of 263,874,000 pounds, worth \$50,940,000. In the fourth quarter of 1949, detergent sales were listed as 181,323,000 pounds, valued at \$34,-888,000, and in the first quarter, '49,

detergent sales were 162,211,000 pounds, worth \$34,804,000.

All of the figures given above are on a "total" not a comparative basis. In the case of synthetic detergents only total figures are given since so many more companies are reporting than was the case a year ago. Comparative figures are given for nonliquid and liquid soaps. These show that sales of non-liquid soaps by the 53 manufacturers reporting regularly amounted to \$67,327,000 pounds, worth \$103,684,000 in the first quarter, a decline of 5.5 per cent from the first quarter of a year ago, and an increase of 21.4 per cent over the final three months of 1949.

Liquid soap sales in the first quarter of 1950 on the basis of reports from 38 manufacturers who have reported regularly were put at 665,000 gallons, worth \$803,000; a decline of 0.2 per cent from the comparable quarter a year ago, and a drop of 12.6 per cent from the previous period last year.

Boston Has Clean-Up Day

Clement K. Stodder, president of the Savogran Co., Boston, was named chairman of the Boston Jubilee "Clean-Up, Paint-Up, Fix-Up" campaign, in which a volunteer army of 500 citizens scrubbed the Boston Common recently. The affair was sponsored by the Boston Chamber of Commerce, of which Mr. Stodder is a director.

P&G Files on Stock

The Procter & Gamble Co., Cincinnati, has registered recently with the Securities and Exchange Commission, Washington, D. C., plans to sell 30,000 shares of common stock to its employes. P&G officials pointed out this does not represent a new issue of stock. They explained it is in accord with profit-sharing dividend and stock purchase plans in effect among employes for many years.

Schneller on Club Board

Frederic A. Schneller, general merchandising manager for Lever Brothers Co., New York, was recently elected a director of the Advertising Club of New York. He is a former president of the Milwaukee Advertising Club.

Pepsodent Names Schaack

Harry C. Schaack was recently advanced from the position of divisional sales manager in St. Louis to syndicate sales manager, it was announced recently by Charles T. Lipscomb, Jr., president of the Pepsodent Division of Lever Brothers Co., Nev York. Mr. Schaack has been succeeded as St. Louis sales manager by Floyd C. Bradley, formerly sales supervisor there.

Boston Bims Golf

Bims of Boston held its first golf outing of 1950 at the Woodland Golf Club, Auburndale, Mass. on Wednesday, June 7. Fifty members and guests attended for golf and additional members joined the group at a steak dinner served in the evening at the Woodland club house. W. E. Johnson of U. S. Industrial Chemicals, Inc., Boston Bims chairman, was master of ceremonies at the dinner. Ed E. Aldrich of United Drug Co., treasurer, handled the golf and general arrangements in conjunction with Harold Ingham of Ingham of Boston.

Scene during recent Boston "clean-up" day, for which Clement K. Stodder, president of Savogran Corp., was chairman.



SMELLS CLEAN...CLEANS CLEAN



HERCULES POWDER COMPANY 961 Market Street, Wilmington 99, Delaware

NC50-3

Drew Lever Publicity Head

J. Edward Drew has been named director of public relations and G. F. Gamber appointed personnel



E. F. DREW

director of Lever Brothers Co., New York, it was announced recently. Thomas A. Gonser, whose resignation to form his own firm was announced earlier, formerly held both posts. Mr. Drew and Mr. Gamber joined Lever two years ago as associate directors of public relations and associate directors of personnel, respectively.

Before joining Lever Brothers, Mr. Drew was associate director of public relations for the National Association of Manufacturers, director of promotion for the American Gas Association, deputy manager of the American Bankers Association and



G. F. GAMBER

vice-president of the American Trust Company of San Francisco.

Mr. Gamber was industrial relations director of the Crosley Division of AVCO Manufacturing Corp., from 1944 until 1948. During the preceding 10 years, he directed labor and employee relations for Talon, Inc., Meadville, Pa. Earlier, he had held executive and personnel posts with Western Electric Co. and Durant Motors of Kearny, N. J., and Detroit.

N. Y. BIMS Golf June 20

The first BIMS of New York golf tournament of the year is to be held Tuesday, June 20 at Ridgewood, (N. J.) Country Club. Dinner will follow the afternoon of golf.

Heads Calgon Research

Dr. Thomas H. Daugherty, assistant director of research for Calgon, Inc., Pittsburgh, was recently appointed director of research succeeding Dr. Everett P. Partridge, who has been appointed director of Hall Laboratories, Inc., associated firm in the Hagan Corporation group. Dr. Daugherty, a graduate of Carnegie Institute of Technology, where he received a B. S. degree in chemistry, received his Ph.D. in the same subject from the University of Pittsburgh. He is to be in immediate charge of research and development projects, particularly develop-

ment work in the application of "Calgon," and other products of the firm.

L. A. Soap Names Designer

Los Angeles Soap Co., Los Angeles, has commissioned Newton Leichter, west coast industrial designer, to restyle the packaging of several of its products, it was announced last month. Mr. Leichter was design consultant for the Lockheed "Constellation" airplane and also styled one of the fast selling ball-point pens.

Vote Canada Soap Tax Ban

A budgetary bill amending the Excise Tax Act and releasing toilet soap from the eight per cent sales tax was approved recently by the Canadian House of Commons, Montreal. Thus sales tax relaxations proposed in the Budget are given effect. The repeal of the sales tax on soap is already effective.

D. A. Barron is Dead

Daniel A. Barron, 57, formerly superintendent of the Procter & Gamble Co. plant in Staten Island, N. Y., and an employee of the company for 40 years, died May 16, after a brief illness at Alexian Brothers Hospital, Elizabeth, N. J. He had retired four years ago. A veteran of the first world war, Mr. Barron belonged to the American Legion and the Veterans of Foreign Wars. He is survived by his widow, two daughters, a son, his mother and three sisters.

Perfumers Honor Sinclair

The American Society of Perfumers Inc. conferred its first honorary membership on Frazer V. Sinclair at the regular monthly dinner meeting, May 25th, at the Hotel Warwick, New York. Mr. Sinclair is publisher of Drug & Cosmetic Industry.

Albertson Joins Mione

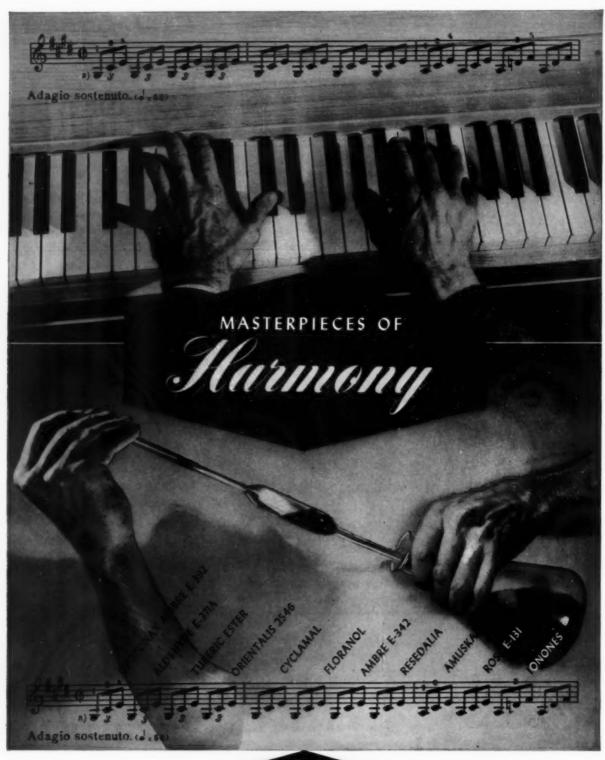
H. R. Albertson, formerly district sales manager of the industrial soap division of Armour & Co., Chicago, in Philadelphia, recently joined Mione Manufacturing Co., Collingdale, Pa. E. E. Barry, president of Mione, in making the announcement, stated that Mr. Albertson had assumed his new duties on June 1. Mione makes both paste and powdered hand soaps for industrial use in bulk and in packaged form for distribution through retail outlets. The firm is over 35 years old.

C-P-P Stockholders Meet

All officers and members of the board of directors of Colgate-Palmolive-Peet Co., Jersey City, N. J., were reelected at the annual meeting of stockholders held recently at Jersey City. The stockholders also voted to approve continuance of the Group Hospitalization and Surgical Benefit Plan which was made effective Mar. 1, 1950.

At the meeting of the board of directors immediately following the stockholders' meeting the following officers were reelected:

Honorary chairman of the board, A. W. Peet; chairman, S. B. Colgate; president, E. H. Little; vice-presidents:



A lilting tune, a delightful fragrance...each depends on the harmony of its notes. The purity and fineness of Verona aromatic chemicals will help you achieve harmony in your products and add a fresh note of distinction to them.



AROMATICS DIVISION

VERONA CHEMICAL COMPANY

26 VERONA AVENUE NEWARK, N. J. J. H. Blakney, E. E. Dreger, H. F. Elberfeld (vice-president and secretary), J. L. Elliott, J. R. Gilman, R. E. Healy, H. R. MacMillan, Manning O'Connor, J. A. Reilly, W. L. Sims, II, J. A. Straka; treasurer and assistant secretary, H. E. Logan; assistant treasurer, E. N. Felio and assistant secretary, A. E. Johnston.

A. E. Johnston.

In addition to the above, the following are directors: W. R. Basset, H. A. Colgate, John K. Colgate, J. A. Coulter, W. B. Johnson, C. S. Pearce, N. F. S. Russell and Stuart Sherman.

The following were elected memory.

The following were elected members of the executive committee: E. H. Little, chairman, W. R. Basset, H. A. Colgate, S. B. Colgate, C. S. Pearce and Stuart Sherman.

ICI to Represent MM&R

Imperial Chemical Industries Ltd. has been named by Magnus, Mabee & Reynard, Inc., New York perfuming material house, to represent them in India, Pakistan and Burma.

Mathieson Names Karre

W. A. Karre, formerly assistant general superintendent, was appointed recently general superintendent of the Niagara Falls, N. Y., plant of Mathieson Chemical Corp., Baltimore. He succeeds Joseph E. Baker, who is now a vice-president.

Luncheon for H. G. Thomas

A luncheon on the occasion of his wedding was tendered May 11, at Brussels Restaurant, New York, to H. Gregory Thomas, president of Chanel, Inc., New York, by the board of directors of the Toilet Goods Assn. and members of the Perfumery Importers Assn. Gerard J. Danco, of the New York essential oil firm bearing his name, was master of ceremonies.

Givaudan Sales Meeting

Members of the sales staff and other divisions of Givaudan-Delawanna, Inc., New York, gathered for the annual sales meeting at the Berkeley-Carteret Hotel, Asbury Park, N. J., recently. The meeting, opened by Ernest R. Durrer, executive vice-president, was presided over by J. H. R. Stephenson, eastern sales manager. Representatives from the New York, New England, Detroit, Cincinnati, Chicago, Los Angeles and other offices, attended, as well as several officers and members of the board.

Kaye Joins Alrose

Ralph E. Kaye, Jr., formerly associated with Atlas Powder Co., Wilmington, recently joined Alrose



R. E. KAYE

Chemical Co., Providence, as midwestern sales representative with headquarters at the new Alrose Chicago office, 629 West Washington Boulevard.

CD&CA Spring Dinner

The Golden Anniversary Spring Party of the Chicago Drug and Chemical Association was held at the Palmer House, May 20. A reception preceded dinner in the Red Lacquer Room.

Canco in New Building

American Can Co., New York, recently announced completion of the removal of its general headquarters staff and facilities from 230 Park Ave. to the new 36-story building at 100 Park Ave., New York. Also affected by the move were the Atlantic Division sales and the Metropolitan sales organizations. At the new location, the can company is occupying about 180,000 square feet of space on seven floors.

Fleming Joins Woburn

Joseph P. Fleming, for many years president of Fleming Chemical Co., has just been named director of technical sales of Woburn Chemical Corp., Harrison, N. J. The activities of the Fleming Chemical Co. in the sale of coconut oil, tung oil, linseed oil, resins, pigments, etc., will be taken over by a new division of Woburn

Chemical Corp., the Woburn-Fleming Sales Division, with offices at 75 Varick St., New York.

Gonser Forms Own Firm

Thomas A. Gonser, director of personnel and public relations for Lever Brothers Co., New York, recently announced the formation of an organization to handle corporation public relations and to serve educational and philanthropic institutions.

Wallace Joins Bache

Gordon T. Wallace, former chief of the fats and oils section of the Office of Price Administration, recently joined Bache & Co., New York, to organize and direct its new fats and oils division.

F. H. Stafford Dies

Franklin H. Stafford, 62, president and treasurer of Verona Chemical Co., Newark, N. J., died April 6. He purchased the company in 1938, having previously for many years been with American Tobacco Co.

Cassullo Fritzsche Treas.

John L. Cassullo, assistant treasurer of Fritzsche Brothers, Inc., New York, was recently elected treasurer, taking over the duties from John H. Montgomery, first vice-president, who had also been treasurer since the death in 1945 of W. A. R. Welcke. Mr. Montgomery continues as vice-president, devoting his efforts to administrative and sales work and general supervision of business under F. H. Leonhardt, president.

Cosmetic Sales Increase

Retail sales of toilet preparations, not including toilet soaps, showed an increase of 2.9 per cent in 1949. Sales in 1949 were estimated at \$770,800,000 as compared with \$749,800,000 in 1948, in a report by the Toilet Goods Association, Inc. A sharp increase in sale of non-taxable preparations was accounted for principally by the introduction of ammoniated dentifrices. There was also a large increase in sales of certain non-taxable shampoos.

You can profit through the use of

Columbia Caustic Soda and Technical Assistance

Columbia Caustic Soda in all forms (solid, flake, or liquid) is known for its exceptionally high standard of purity which contributes to better processing and improved quality in finished products.

Columbia's specialized technical staffs are available to provide valuable help and, in many cases, to suggest real economies in your use of Caustic Soda.

You are invited to call upon Columbia to assist you with your problems. Pittsburgh Plate Glass Company, Columbia Chemical Division, Fifth at Bellefield, Pittsburgh 13, Pennsylvania.

THESE COLUMBIA STAFFS STAND READY TO HELP YOU

TECHNICAL SERVICE



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Provide information on applications; new uses; methods of handling; storage; safety precautions; review of the form of Caustic Soda you are now using.

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Maintain speedy, efficient, economical delivery service; maximum protection of Caustic Liquor in transit; unloading procedures; savings in shipping.

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TECHNICIANS

Make sample analyses and control tests to assure exact conformity to special specifications.

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PITTSBURGH PLATE GLASS COMPANY



P&G Comic Book Offer

A new premium offer, especially designed for children, of six pocket-size comic books, for 15 cents and a boxtop from either "Dreft" or "Oxydol" or two large size "Ivory" soap wrappers was announced recently by Procter & Gamble Co., Cincinnati.

Woburn Advances Reimold

Karl H. Reimold, with the organization since 1927, was recently appointed vice-president and general manager of Woburn Chemical Corp., (N. J.), Harrison, N. J. Formerly vice-president in charge of purchases, he succeeds A. G. H. Reimold, president, who has relinquished the post of general manager. It was announced that Alan R. MacFarland has resigned as assistant general manager.

New Mathieson Venture

Formation of Mathieson Hydrocarbon Chemical Corp., a new \$27,000,000 joint venture of Mathieson Chemical Corp., Baltimore, and Tennesse Gas Transmission Co. was announced recently. The new concern will produce a number of chemicals from hydrocarbons in natural gas transported by Tennessee from Texas and Louisiana to Northern and Eastern markets.

Assn. Hears Wesemann

A review of the situation on the three main groups of essential oils: citrus, spice and general flavoring oils used by the flavoring extract industry was given by H. P. Wesemann, vicepresident of Fritzsche Brothers, Inc., New York, and president of the Essential Oil Association of the United O'd-timers' night was celebrated by the Drug, Chemical & Allied Trades Section, N. Y. Board of Trade on May 10. Over 200 old-timers and some youngsters also dined at the Hotel Astor, New York. Scrolls were presented to those with 50 years or more service in DCAT. Harold Green of L. Sonneborn Sons, DCAT chairman, presided. Charles Walker of Charles Pfizer & Co. was master of ceremonies.

States in a talk before the annual meeting of the Flavoring Extract Manufacturers Assn. of the U. S. at the Hotel Traymore, Atlantic City, N. J., May 9.

Foundation Sales Bulletins

A new monthly educational service for sales personnel was announced recently by the Fragrance Foundation, Inc., New York, with the mailing May 10 of the first issue of "Counter Points." The information sheet was sent to buyers of leading retail stores in the U. S., and is designed to give practical sales hints. Copies are free on request to the Foundation at 9 Rockefeller Plaza, New York 20.

Maternity Cosmetics Files

Articles of incorporation were filed recently with the office of secretary of state, Albany, N. Y., for Maternity Cosmetics. The firm will deal in soaps, cosmetics and hairdressing. Capital stock was listed as 200 shares of no par value. Directors are Marion G. Phillips, Edgar N. Phillips and Edyth H. Phillips, all of 4370 East Ave., Rochester, N. Y.

P. I. Copra Exports Up

Exports of copra from the Philippines during March rose to 43,-100 long tons, from 29,536 tons shipped abroad in February, which was the smallest monthly total in over a

Canco Fills Three Posts

The appointment of F. J. Green as manager of manufacture for the Atlantic Division of American Can Co., New York, was announced recently. Mr. Green, who has been assistant manager for the division, succeeds R. F. Hepenstal, recently named assistant general manager of manufacture for the company. At the same time it was announced that R. B. Thompson and A. de Genaro have been named as assistant managers of manufacture for the division.

Mathieson Earnings Up

Mathieson Chemical Corp., Baltimore, reported recently an increase in its net earnings for the first quarter of 1950, as compared with the comparable period a year ago. This year the firm reported net earnings of \$2,202,752, equal to \$1.62 per common share, as against \$1,291,552, or \$1.48 for the first three months of 1949.

New Safety Graph

A new safetygraph, showing why falls are one of the most serious of all industrial accident hazards, how they occur and how to prevent them, has been prepared by the National Safety Council. Designed as a visual aid, it consists of 12 spiral-bound pages, 18 by 24 inches, inserted in a leatherette portfolio.

year. Of the March shipments, 31,000 tons came to the United States and 7,800 tons went to Europe.

Coconut oil exports were up, too, during March, when 3,789 long tons, compared with 3,531 tons for the previous month, were shipped.



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Carbose* can do it. Carbose is Wyandotte's "detergency promoter." As little as 1% of Carbose added to a synthetic detergent can increase soil removal and whiteness retention properties by 20 to 50%.

Here's what three laundries say about detergents promoted with Wyandotte Carbose:

"We got soft water quality in a hard water plant with a decrease in the cost of supplies." "We got an outstanding improvement . . . reduced the cost of our supplies by 24.4%."

"Significant increase in quality . . . reduction in cost of supplies 50%."

These are just a few of hundreds of field observations made with different formulations of Carbose with synthetic detergents and builders. We think they show that it might be worth while for you to investigate Wyandotte Carbose. Why not write for samples today?

*Reg. U. S. Pat. Off.

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CARBOSE (Sodium CMC) • ETHYLENE DICHLORIDE
PROPYLENE DICHLORIDE
AROMATIC SULFONIC ACID DERIVATIVES
OTHER ORGANIC AND INORGANIC CHEMICALS

Wyandotte Chemicals Corporation
Wyandotte, Mich. • Offices in Principal Cities



Shapiro Industrial Head

Harry G. Shapiro, formerly vice-president and general manager of Industrial Soap Co., St. Louis, was re-



HARRY G. SHAPIRO

cently elected president, succeeding Maurice H. Mednik, who died Feb. 24. Robert D. Shapiro is now vice-president. The new Industrial president joined the firm in 1947 as vice-president, after having been with Procter & Gamble Distributing Co., Cincinnati, from 1919 until that time.

It was also announced at the same time that the firm is planning to build a new, two-story plant of approximately 41,000 square feet of floor space with an additional 35,000 square

feet of ground for loading and parking facilities. The firm's present building lies in the path of a projected highway. Industrial Soap Co., incorporated in 1933, compounds, formulates and packs various cleaning products for industrial, institutional and commercial purposes, including synthetic detergents, soaps, cleansers, quaternary ammonium compounds, etc. It also acts as wholesale distributor and broker for chemical specialties and allied materials and equipment.

Honor Werk Executive

Julius G. Underwood, secretary-treasurer of the M. Werk Co., Cincinnati soap manufacturers, and immediate past president of the Cincinnati Chapter of the National Association of Cost Accountants, has been elected recently as president of the Delta Mu Delta honorary scholastic society of the University of Cincinnati Evening College. His term began May 1, 1950.

L. A. Soap Maker Dies at 90

Samuel L. Boeckel, 90, retired soap manufacturer, who had lived in Los Angeles for 66 years, died May 12 at his home there. He is survived by a daughter, Mrs. Isabella Dohs, with whom he lived.

John R. Mays, Jr., of Barrow-Agee Laboratories, Inc., Memphis, seated at right, is the newly elected president of the American Oil Chemists' Society. With him left to right, at the recent annual meeting at the Atlanta Biltmore Hotel, May 1-3, are Charles E. Paulson, Mrs. Ernestine Pollak and Joseph Fugger, Jr.



P&G Dividend Correction

In a recent issue of Soap and Sanitary Chemicals it was incorrectly reported that \$45,000 was paid in



William Lakritz, president of Florasynth Laboratories, Inc., New York and Florasynth Ltd., Canada, recently returned from an extensive European trip. He visited England, France, Belgium and Italy. While in France he spent considerable time with Schmoller and Bompard, which Florasynth represents in the U. S. and Canada.

profit sharing dividends to employees in 1949 of Procter and Gamble Co. in the Cincinnati area. Actually the figure should have been \$445,000.

Fat and Oil Use Off

Down slightly from the final quarter of 1949, consumption of primary fats and oils reported for soap making in the first three months of 1950 was slightly higher than in the first quarter a year ago, according to figures released recently by the Bureau of Census of the Department of Commerce. In the first three months of 1950, 429.7 million pounds of primary fats and oils were reported consumed for soap, as against 433,742,000 pounds in the final quarter last year and 427,472,000 pounds in the first three months of 1949.

Tallow consumption (255.3 million pounds) for the Jan.-Mar. 1950 quarter was larger than for any single quarter last year, when 252,122,000 pounds were reported used in the fourth quarter, the largest for the year. In the first three months of 1949 tallow use was put at 228,861,000 pounds. Including the 40.3 million pounds of secondary fats and oils reported consumed in soap during the first quarter of 1950, total fat and oil consumption was 470 million pounds.



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give you full measure of value for your quality soaps

Time, talent, and decades of research have gone into the development of Schimmel's many fine Rose odors with a result that is appreciated by soap perfumers everywhere.

We especially recommend—

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Rose d'Orient Extra Rose Musk Bouquet 3562

For Liquid Soap:

Rose S 153 Rose SS 210

Schimmel & Co., Inc.

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Quality

RAW MATERIAL NEW TON

As of May 29, 1950

AJOR marketing developments of the past month featured price reductions on tallow and coconut oil; advances on crude vegetable oils; the announcement of new, higher price schedules on alkalies, and increases July 1 on certain silicates. In addition, price advances on caustic potash and carbonate of potash were announced recently, effective July 1. The new prices are from 3¾ per cent to 8¼ per cent above the present price level.

The new works prices per 100 pounds of caustic soda on carlots, large packages are: solid, \$7.90; flake, \$8.50; broken, \$8.75; crushed, \$8.25; walnut, l.c.l. lots \$10.65; liquid tank cars, \$3.55 Be. 45°; drums, \$3.875 flat; tank wagons in New York area, \$4.65; tank wagons in Philadelphia area, \$4.775.

Fatty acids are reported moving higher, too. Their rise is attributed to higher crude vegetable oil prices and recent heavy buying in anticipation of reduced output during plant closings in the summer.

Mixed price changes were recorded in fats and oils with tallow drifting lower to 61/4 cents, which is an eighth of a cent under the April 28 price and three-eighths down from the price that prevailed almost from the first of the year. One year ago tallow was bringing 57/8 cents.

Coconut oil, crude, Pacific Coast basis, for the second consecutive month is down 7/8 ths of a cent and is currently quoted at 14 cents. On approximately this date last month coconut oil was selling for 147/8 cents; and the month previous to that it was listed at 153/4 cents a pound. Copra, while up somewhat from an earlier May quotation, is still under the April 28 figure. It is now listed at \$180 a ton on the Pacific Coast, which is an

advance of \$7.50 from an earlier May figure, but is under the \$195 a ton price shown on April 28. It had gone as high as \$212 a ton early in April.

Crude vegetable oils, prices of which are ascending include cottonseed oil, corn oil and soybean oil. Peanut is off slightly from the general trend, which some attribute to government holdings of soybeans. Moving upward were cottonseed oil, which was quoted at 145/8 cents, up seven-eights of a cent from the late April price. An early April quotation on cottonseed oil was 131/2 cents. A year ago cottonseed oil was listed at 101/2 cents a pound. Higher, too, is corn oil: by one and one-eighth cents, as compared with the April 28 price. At its present level of 151/4 cents, corn oil compared favorably with the price of 113/4 cents a pound a year ago, and with that of April 5, when the price was given as 14 cents. Somewhat higher by 3/4 cents a pound is soybean oil. Last month at approximately this time it was bringing 131/8 cents, and on April 5, 13 cents. A year ago soybean was reported selling for 101/8 cents a pound. The single exception in the crude vegetable oil price picture is peanut oil, off by 1/8 cent from the late April figure. It is now quoted at 143/4 cents. A year ago it was 131/4 cents, and early in April of this year peanut was 15 cents a pound.

Price increases on caustic soda, soda ash and chlorine, announced recently by two large producers ranged from 10 to 15 cents per hundred pounds, as of the first of July by Solvay and \$2 a ton for c.l. shipments of light and dense soda ash and \$3 a ton on liquid, solid and flake caustic soda by Diamond. The new Diamond price on liquid chlorine in single and multiunit tank cars is 20 cents a hundred pounds higher. Chlorine production lags behind demand and is making for

tight supply situations on paradichlorobenzene and DDT among other chemical products.

Price increases effective July 1 announced recently by Philadelphia Quartz Co. on silicates are as follows: liquid silicates, 5 cents per cwt; solid silicate, \$2.50 per ton, and on "Metso" products, 25 cents per cwt. No changes are to be made on powdered grades at this time, according to the company.

Carnauba wax prices are up, as compared with a month ago, but are reported to be still below minimum export prices in Brazil. The period of barter is reported to be at an end. Current prices on No. 3 crude of 72-74 cents a pound are up from the April level of 64-67 cents; the refined range is 76 to 78 cents, as against 71-72 cents; No. 1 yellow is currently 95 to 97 cents, an advance from the earlier range of 83-85 cents; No. 2 at 93-95 cents represents an increase over the 81-83 cents range of a month ago.

Essential oil market trends, as outlined in the recently issued "Fritzbro Reporter," published by Fritzsche Brothers, Inc., New York, "seem reasonably stabilized at present levels, subject of course, to the usual seasonal fluctuations. There are and will continue to be some notable exceptions so long as the world situation is beset with widespread political and economic disturbances," the report states. In the face of an expanding domestic economy with a marked inflationary tendency, consumers of essential oils in general will be well advised not to permit raw material reserves to become too low, according to the report. It further points out that "aromatic chemicals have in many cases tended to decline. This can hardly reflect lower costs and must be attributed to competitive influences in the domestic

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NEW TRADE MARKS

THE following trade-marks were published in the May issues of the Official Gazette of the United States Patent office in compliance with Section 6 of the Act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, a fee of ten dollars must accompany each notice of opposition.

A Decto Product—This for furniture polish. Filed Dec. 4, 1946 by The Decto Products Co., Salem, Mass. Claims use since Oct. 2, 1946.

Weedeath—This for herbicide. Filed Jan. 9, 1947 by Howard Hanson & Co., Rockton, Ill. Claims use since Jan. 4, 1946.

Kil-Zal—This for insecticides. Filed May 16, 1947 by National Laboratories, Parsons, Kans. Claims use since Aug. 15, 1937.

The following trade marks are published in compliance with section 13 (a) of the Trade Mark Act of 1946. Notice of opposition must be filed within 30 days of publication and a fee of \$25 must accompany each notice of opposition.

Spiritine—This for furniture polish. Filed Mar. 24, 1948 by Spirittine Chemical Co., Wilmington, N. C. Claims use since 1900.

Fanciful drawing of figure holding billiard cue. This for billiard ball polish. Filed June 2, 1948 by Brunswick-Balke-Collender Co., Chicago. Claims use since Nov. 1, 1945.

Magic—This for silicone impregnated paper for cleaning eye glasses, etc. Filed Jan. 19, 1949 by The Silicone Paper Company of America, New York. Claims use since Mar. 1, 1948.

Fuller—This for moth repellent in block form. Filed Dec. 5, 1947 by Fuller Brush Co., Hartford, Conn. Claims use since Oct. 1, 1923.

"Wist"—This for liquid sterilizer for combs, brushes, etc. Filed Oct. 13, 1948 by Harf, Inc., Hilltown Township, Pa. Claims use since Dec. 1, 1947.

Questral—This for water softener and conditioner. Filed Feb. 18, 1949 by Bu-Tay Products, Ltd., Los Angeles. Claims use since Nov. 16, 1948.

Sasco-This for insecticide in

dust form. Filed Mar. 26, 1949 by Mathieson Chemical Corp., Baltimore. Claims use since August, 1940.

White Diamond—This for insecticides and fungicides, Filed Mar. 26, 1949 by Mathieson Chemical Corp., Baltimore. Claims use since 1944.

Kemwood Seal—This for sealers. Filed Mar. 26, 1948 by Sherwin-Williams Co., Cleveland, O. Claims use since May 1, 1947.

Master Service—This for paraffin floor oil. Filed May 2, 1949 by Central Hardware Co., St. Louis. Claims use since August, 1932.

Tornado—This for floor machines. Filed Sept. 22, 1948 by Breuer Electric Manufacturing Co., Chicago. Claims use since March. 1947.

Eastern States—This for dusters for applying powdered insecticides. Filed Nov. 18, 1948 by Eastern States Farmers' Exchange, West Springfield, Mass. Claims use since March, 1935.

Antiquax—This for polishing wax. Filed Apr. 12, 1948 by Frank Partridge, Inc., New York. Claims use since 1918.

Skuf Shine—This for shoe polish. Filed July 28, 1948 by Hollywood Shoe Polish, Inc., Richmond Hill, N. Y. Claims use since Apr. 21, 1948.

The Lynn—This for shoe polishes. Filed Dec. 2, 1948 by George J. Kelly, Inc., Lynn, Mass. Claims use since Jan. 2, 1914.

Rosemaster—This for pesticide. Filed Dec. 21, 1949 by Michigan Chemical Corp., St. Louis, Mich. Claims use since Jan. 31, 1947.

Ens-Zem—This for insecticides. Filed Aug. 25, 1947 by Stauffer Chemical Co., San Francisco. Claims use since Dec. 3, 1940.

Ingo—This for chemical preservative for protecting various surfaces against injury from insects. Filed Nov. 25, 1947 by Horace E. Heindel Co., York, Pa. Claims use since June 24, 1947.

Panalene—This for mixture of hydrocarbon petroleum liquid fractions for use in the manufacture of insecticides. Filed Feb. 3, 1948 by Pan American Refining Corp., New York. Claims use since Nov. 17, 1945. Dripco Special—This for liquid

Dripco Special—This for liquid disinfectant for urinals and water closets. Filed Aug. 23, 1948 by West

Trade Mark Correction

In our May issue the trademarks "Antaron" and "Antarane," filed by General Aniline & Film Corp., New York, were misspelled. We regret the error and any embarrassment caused.

Disinfecting Co., Long Island City, N. Y. Claims use since May, 1920.

"Nun Better"—This for polishing and wiping cloths. Filed Dec. 18, 1947 by Rittenbaum Brothers, Atlanta, Ga. Claims use since Sept. 1, 1915.

Breck—This for hair shampoo, liquid soap shampoos, etc. Filed Feb. 14, 1948 by John H. Breck, Inc., Springfield, Mass. Claims use since Feb. 4, 1931.

Gliss'n—This for cleaning material. Filed Dec. 1, 1948 by Gliss'n Products Co., Chicago. Claims use since Nov. 1, 1939.

O-So-Kleen—This for washing powder having water softening properties. Filed July 19, 1948 by Coast Products Co., Los Angeles. Claims use since Feb. 8, 1941.

Krusader—This for preparation used for cleaning and removing grease. Filed Oct. 27, 1948 by Arwell, Inc., Waukegan, Ill. Claims use since July 1, 1927.

Sergeant's Skip Stain — This for liquid preparation for removing stains caused by animals from fabrics and textiles. Filed Nov. 4, 1948 by Polk Miller Products Corp., Richmond, Va. Claims use since Sept. 20,

Stakleen—This for spot remover for removing spots from fabrics. Filed Dec. 4, 1948 by Kali Manufacturing Co., Philadelphia. Claims

use since July 1, 1934.

Today—This for all purpose household cleaning compound. Filed Dec. 11, 1948 by Schalk Chemical Co., Los Angeles. Claims use since Mar. 24, 1948.

Kolene—This for dry cleaning solvents. Filed Jan. 15, 1949 by Kolene Corp., Detroit. Claims use since Jan.

Beauty Brew—This for a shampoo preparation for the hair and scalp. Filed Mar. 26, 1949 by Beauty Brew, Inc., Chicago. Claims use since Feb. 6, 1949.

Bon Soir Bug—This for insecticides. Filed June 7, 1949 by Bon Soir Bug Co., Opelousas, La. Claims use since May 3, 1949.

Silikill—This for insect killing compound. Filed June 15, 1949 by Waxed Silicone Products, Inc., Miami, Fla. Claims use since Aug. 1, 1948.

Roachmaster — This for liquid insecticide. Filed Dec. 21, 1949 by Michigan Chemical Corp., St. Louis, Mich. Claims use since Dec. 4, 1946.

Phillips 66—This for livestock spray. Filed Nov. 4, 1948 by Phillips Petroleum Co., Bartlesville, Okla. Claims use since June 3, 1931.

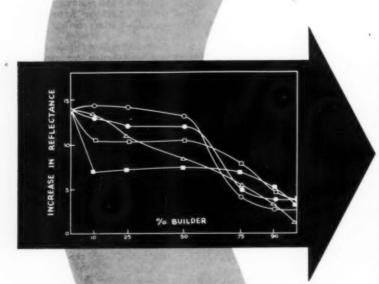
Campal—This for liquid insect repellent. Filed Mar. 10, 1949 by Miller-Allbritton, Tampa, Fla. Claims use since May 25, 1948.

Ta-Ant—This for ant poison. Filed Mar. 25, 1949 by Fleming Drug

(Turn to Page 148C)



New Cleanliness at Less Cost with Synthetic-Silicate Combinations



PQ SOLUBLE SILICATES boost the dirt-removing power of synthetics. This is shown in the chart to the left, which is based on a recent study using synthetic detergent-builder mixtures in 50 ppm hard water. In the range of 10 to 50% additions of PQ Silicates, reflectance values are superior to the straight synthetic and to those with other builders.

In formulating your synthetic-builder mixtures, you can reduce their high costs by specifying dependable PQ Quality Silicates. These insure top performance not only in dirt removal but in preventing dirt redeposition and other detergent values. Send for a copy of Bulletin #1-15 "Detergent Properties of Alkyl Aryl Sulfonate-Builder Mixtures" by R. C. Merrill & Raymond Getty.

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PHILADELPHIA 6, PENNSYLVANIA



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- C Silicate, 59° Baume Ratio 1:2.0
- □ Metso Granular, Sodium Metasilicate Ratio 1:1
- Pyrophosate
- △ Soda Ash



BIDS A

AND AWARDS

Fed. Supply Soap Awards

The following awards were announced on soap in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C .: General Soap Co., Chicago, item 51-S-1430, 8.18 cents for Kansas City; Gillam Soap Works, Fort Worth, Tex., same item, 7.6 cents Fort Worth and 7.8 cents Denver; J. Eavenson & Sons, Camden, N. J., item 51-S-1885, 9.68 cents; Washington, D. C.; Chicago Sanitary Products Co., Chicago, item 51-S-1920, 15.50 cents for San Francisco; Hershey Estates Soap Division, Hershey, Pa., item 51-S-1430, 7.75 cents for Washington, D. C., item 1920, 13.31 cents same destination; Procter & Gamble Distributing Co., Cincinnati, item 51-S-1430, 7.71 cents, San Francisco; Newell-Gutradt Co., San Francisco, item 51-S-1655, 4.49 cents, San Francisco; Peck's Products Co., St. Louis, item \$1-S-1655, 5.96 cents, Cleveland and 5.7 cents, Chi-

Soap Dispenser Bids

The following bids were received on soap dispensers in a recent opening for miscellaneous supplies by the Brooklyn Armed Services Medical Procurement Agency, Brooklyn, N. Y.: Huntington Laboratories, Huntington, Ind., \$25, and Vestal, Inc., St. Louis, \$22,50, which firm received the award.

P.O. Scouring Powd. Bids

Bids on an unspecified quantity of scouring powder in a recent opening for miscellaneous supplies by the Post Office Department, Washington, D. C., were received from the following: Fischer Industries, Cincinnati, 4.54 cents per pound; Unity Sanitary Supply Co., New York, eight cents; Murro Chemical Co., Burnsville, N. C., 3.26 cents; Atwood Manufacturing Co., Riverton, N. J., 8.5 cents; G. H. Packwood Manufacturing Co., St. Louis, 4.825 cents; General Soap Co., Chicago, \$3.42 per cwt.; Stone Soap Co., Detroit, nine cents; Independence Chemical Co., Philadelphia,

4.4 cents; Federal Chemical Co., Chicago, 2.43 cents; Chemical Manufacturing & Distributing Co., Easton, Pa., 3.99 cents and National Milling & Chemical Co., Philadelphia, 4.05 cents.

Squill Award to Penick

S. B. Penick & Co., New York, received the award on a quantity of red squill powder in a recent opening for miscellaneous supplies by the District Government, Washington, D. C. The Penick bid was \$1.55.

Marine Corps Soap Bids

Bids on soap in a recent opening for miscellaneous supplies by the Marine Corps, Washington, D. C., were received from the following: Crystal Soap & Chemical Co., Philadelphia, item 2a, 6.3 cents; Day & Frick, Philadelphia, item 2a, 5.45 cents and b, 6.95 cents; Wm. Messer Corp., New York, 2a, 6.42 cents; Newell Gutradt Co., San Francisco, item 2b, 4.8 cents; Sapolio Products Co., New York, item 2a, 6.42 cents; Pioneer Soap Co., San Francisco, item 2b, 9.8 cents; Hunnewell Soap Co., Cincinnati, item 2a, seven cents; M. Schneider & Sons, Brooklyn, item 2a, 4.9 cents wrapped and 4.5 cents unwrapped, 2b, 7.33 cents wrapped and 6.93 cents unwrapped.

Low Misc. Fed. Supply Bids

Among the low bids on toilet bowl cleaner, disinfectant and sanitation powder were those received from the following firms in recent openings for miscellaneous supplies by the Federal Supply Service, Washington, D. C.: Hygenic Products Co., Canton, O., \$2 per case on item 51-C-1313-485 (toilet bowl cleaner) for these destinations: Boston, New York, Washington, D. C., Cleveland; Chicago, Kansas City, Denver, San Francisco, Seattle and Los Angeles; Ches-White Co., Baltimore, on the same item, Boston, 10 cents, New York, 8.5 cents; Washington, D. C., 8 cents; Cleveland, 8.8

cents; Chicago, 9.6 cents, Denver, 12.3 cents, San Francisco, 12 cents; Seattle, 12 cents and Los Angeles, 12 cents; Industrial Soap Co., St. Louis, on the same item, 10 cents for Kansas City.

Low bids on the disinfectant were received from: Trio Chemical Works, Brooklyn, on item 51-D-392 for Washington, D. C., 56 cents; item 51-D-395-10 for East Point, Ga., 62 cents; for same item, Los Angeles, 75 cents; Boston, 55.5 cents; New York, 51 cents; Cleveland, 62 cents; Chicago, 64 cents; Fort Worth, 72 cents; item 51-D-395-15, Kansas City, 65 cents; Chicago, 62.5 cents and item 51-D-395-55, Chicago, 53 cents; R. M. Hollingshead Corp., Camden, N. J., item 51-D-393, Washington, D. C., 46 cents; Dickson & Munro Sales Co., San Francisco, item 51-D-395-15, Los Angeles, 73 cents.

Imperial Products Co., Philadelphia, submitted low bids on items 1a through f (sanitation powder, 51-P-2546) with bids of 11 cents on items 1a through c for Boston, New York, and Washington, D. C., and on item 1d, 11.5 cents for Chicago, 12.3 cents for item 1e, Fort Worth and 12.1 cents on item 1f for Kansas City. Ches-White Co., Baltimore, also submitted a bid of 11 cents on item 1c for Washington, D. C.

N. Y. C. to Buy Soap

Bids on 287,760 pounds of laundry bar soap were invited recently by the Department of Commerce of the City of New York in its latest bulletin of openings by various governmental bodies. Copies of the invitations to bid, together with specifications on the items are on file at the Department of Commerce, 60 Broadway, New York 4.

Cinn. Chem. Assn. Meets

The regular monthly dinner meeting of the Cincinnati Drug and Chemical Association was to be held Thursday, May 25 at the Hotel Alms. John Dolibois, executive secretary of the alumni association of Maimi University, was to speak on the subject of "I Knew Top Nazis."

KRANICH SOAPS

Kranich standard soaps are manufactured and produced entirely in our own factory. All soaps are manufactured from fatty acids distilled and vegetable oils refined by us. All alkalies are dissolved and settled to remove impurities. All soaps are HEAVY METAL free (new technique).

29 years in business as one of America's leading manufacturers of soaps ONLY is a testimonial to the standard quality of our products.



MAINTENANCE SOAPS

Liquid Toilet 40%, 30%, 20% Coconut Oil

Potash Vegetable Oil Soft 40%, Hard 65%, Scrub 20%

Powdered Coconut Oil 98%
(For Detergent Compounding)



Kranich Soap Company, Inc.

54 Richards Street

Brooklyn 31, N. Y.

KRANICH SOAPS

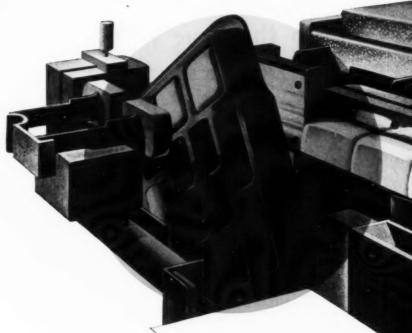


as you were in 1900

Many soap-making operations were done by hand; so were some of the processes involved in paper, textile and glass manufacturing as well as water purification and sewage treatment.

as you are today

Sanitary, efficient machine operations replace the old hand processes in soap manufacture.



...with 50 years of research by Niagara Alkali

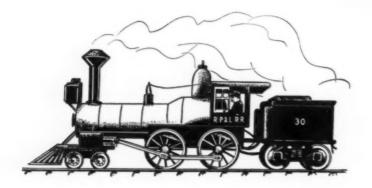
Gigantic kettles four stories deep...capacities as high as 175 tons...these are
the superlatives in which soap-makers are planning—and working
—today. Every step in soap manufacture is absolutely controlled to assure a uniform and superior product.

Niagara Alkali, now observing its 50th anniversary, is likewise able to assure the uniformity and superiority of its products—the result of continuous research to achieve product control and efficiency. The success of this research is reflected in Niagara's ability to serve many fields well: paper, soap, glass, textiles, sewage treatment, water purification and others.



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Liquid Chlorine • Caustic Potash • Carbonate of Potash • Paradichlorobenzene • Caustic Soda Niagathal (Tetrachloro Phthalic Anhydride) • NIALK TRICHLORethylene



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Sperm Oil Oleo Stearine Lard Oil Neatsfoot Oil

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FATTY ACIDS

Red Oil

Tallow Stearic Acid Hydrogenated Fatty Acid Cottonseed and Soybean

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Fatty Acids

Caustic Soda, Solid, Liquid, and Flake Soda Ash, Light and Dense Carbonate of Potash, calcined and hydrated Calcium Chloride Tri Sodium Phosphate

Tetra Pyro Phosphate Quadrafos Granular and Beads-a stable polyphosphate for water conditioning and mild but effective detergency.

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MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powders; suitable for cosmetic and industrial use.

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Ethanol	disinfectants; cosmetics; toiletries; cleansers; polishes.
Mixed Isopropanolamine	 dry-cleaning soaps; solvent activator for paint-stripping compounds; emulsifier for water emulsion paints.
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74

Say you saw it in SOAP!

June, 1950





ORONITE CHEMICAL COMPANY

38 SANSOME ST., SAN FRANCISCO 4, CALIF. STANDARD OIL BLDG., LOS ANGELES 15, CALIF. 30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y. 408 S. MICHIGAN AVENUE, CHICAGO 5, ILL. 824 WHITNEY BLDG., NEW ORLEANS 12, LA. This new D-40 is extremely adaptable for any compounding operation. All types are of the same high quality but differ in particle size and bulk density to suit any requirement.

D-40 has superior *cleaning action* and really gets the dirt, yet D-40 is neutral and will not harm the finest fabrics.

D-40's fast wetting and penetrating action and its remarkable stability over a wide range of pH conditions have proved helpful in a variety of industrial applications from fruit washing to dye leveling.

D-40 provides abundant *foam* and will add "life" to any compound, yet for special purposes, the foam can easily be eliminated.

Try D-40 Detergent now, for any compounding or repackaging operation. Use it with confidence, whether you are producing a product for commercial or household use.

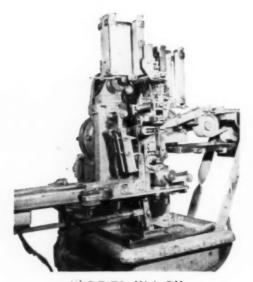
For better wrapped soap cakes at higher production speed, use

HOUCHIN VAN BUREN Model "M-S" and Model "S" SOAP WRAPPING MACHINES

NOW RELEASED FOR GENERAL USE FOR THE FIRST TIME.

Although these revolutionary, fully automatic wrapping machines were only recently added to the Houchin line, yet they have been in exclusive use for several years by one of the world's largest soap manufacturers, continuously wrapping high grade toilet and laundry soaps.

THIS IS AN OPPORTUNITY FOR SOAP MANUFACTURERS TO INCREASE THE EFFICIENCY AND RATE OF OUTPUT IN THEIR SOAP WRAPPING DEPARTMENT WITH THE MOST MODERN OF WRAPPING MACHINES.



Will wrap up to 300 cakes of hotel-sized cakes per minute.



Will wrap up to 200 cakes of toilet-sized cakes per minute.

Both models illustrated wrap cakes with cut inside and outside wrappers and glue-sealed ends. OTHER MODELS AVAILABLE.

Write for full facts about any of these outstanding machines.

HOUCHIN MACHINERY CO., INC. Howthorns

Manufacturers of Soap Making Machinery for over three-quarters of a century.

PRODUCTION SECTION

Sulfation of Fats and Oils

HE process of sulfation and sulfonation of organic compounds to improve the solubility of the compound, or form more reactive hydrocarbons for further processing, involves the use or formation of highly corrosive acids. Corrosive acids are involved also in the fat splitting of glycerides to form fatty acids for use in the manufacture of soaps and other surface active agents. Construction materials for equipment used in these processes must, of necessity, be adequately resistant to corrosion. Factors concerned most directly in the extent of corrosion are temperature of operation, and concentration of the acid.

The sulfated or sulfonated compounds are generally formed from animal or vegetable oils combined with a fatty alcohol, hydrocarbon or aromatic. The sulfating agent is usually a 66° Be. solution of SO₃, although chlorosulfonic acid or the bisulfate solutions have been used also.

Most so called sulfonated oils are actually sulfated, since the bond is usually through the O of the SO, radical. The temperatures involved in the sulfation of the oils are usually between 20° to 60° C., using a 66° Be. sulfuric acid; however, with the more unsaturated fats, temperatures may drop to 10° C. The operation is usually batch type, taking from six to 24 hours. After sulfation, sodium sulfate or sodium chloride is added to salt out the product, which is then washed with Glaubers salt, and finally neutralized with caustic soda, soda ash or ammonia. The washing and neutralization is often performed in the sulfation vessel.

Monel equipment has been

Used particularly in the preparation of surfaceactive materials, sulfation or sulfonation involving the use of corrosive acids requires equipment that can adequately resist corrosion.

found quite satisfactory for the sulfation of animal and vegetable oils. It is used also for linings, coils, agitators, pipe fittings, pumps and other equipment used in connection with the sulfation.

In the sulfation of olive oil and tea seed oil, nickel clad steel equipment is preferred to Monel, since it gives a better color finished product. Nickel clad equipment is preferred also for the storage of finished oils.

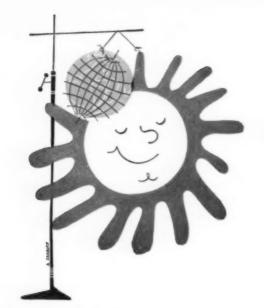
The relatively new synthetic detergents are prepared by the sulfation of fatty alcohols or fatty esters to form aliphatic alkyl sulfates. These are reacted with an alkali to form the corresponding potassium, sodium and ammonium salts, for use as detergents. The synthetics often surpass soap in wetting and emulsification, furthermore, they do not turn rancid in storage and are stable to acid and alkali salts.

Other surface active agents are prepared by the sulfation of aromatic hydrocarbons such as benzene or naphthalene. The alkyl aryl sulfonates are prepared by treating a paraffin hydrocarbon, such as keryl or kerosene, with benzene sulfonic acid, and then adding an alkali to form the corresponding salt.

When the sulfuric acid concentration is about 80 per cent, steel or iron reacting vessels are adequate. However, if through dilution, or by some other means, the concentration falls below 80 per cent, Monel equipment is required. In sulfation processes with strong oleum at temperatures of 165-175° C., or with weaker sulfuric acid solutions, which require temperatures of about 225° C., the rate of corrosion of steel and Monel equipment is quite high, so glass lined steel equipment is used.

Monel is common for washing and neutralization equipment. It is used also in petroleum refineries for handling the alkyl aryl sulfonates before and after treatment with alkali. The alkyl sulfate bases are stored in Inconel equipment. The extent of corrosion of the equipment depends on the formation of free sulfur dioxide. An accumulation of SO, may condense to form the corrosive H2SO3. Corrosion may be controlled, to a certain extent, by opening the corners of the containing vessel to release the SO2 as it forms. Inconel is used also in spray drying some of the alkyl sulfate detergents, where color is an important factor.

Fatty acids used in soap manufacture and the manufacture of other surface active agents are derived by the fat splitting or hydrolysis of glycerides. This is generally done by reacting the fat with one to 1.5 per cent by weight of concentrated sulfuric



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No, we're not Mother Nature. But we do have her a bit worried because our synthetic essential oils duplicate her products so closely and replace them so effectively. We know that you will be greatly pleased with the advantages these synthetic essential oils offer in low cost, price stability, and greater chemical and olfactory consistency. You're missing the boat if you haven't tried Geranium Synthetic No. 1086, Vetivert Synthetic L.G., Patchol, and others.

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acid, in the presence of a catalyst, attemperatures close to 100° C. Monel is used commonly in the construction of solid or lined acid tanks, while Inconel has been found more suitable in

the more recently developed continuout fat splitting methods, which operate under pressure and use hot water. Soap Perfumery and Cosmetics 23, No. 4, 383-386 (1950).

Detergents as Germicides

IN CLINICAL and other medicinal preparations, detergents themselves, may be used for their germicidal effect, or they may be used as the solubilizing, emulsifying or carrying media. In the latter case, the detergent may be inert, or contribute synergistic action. In any case, the type detergent selected should complement the active product, otherwise, the potency of the active ingredient may be reduced; for example, an anionic detergent should not be used with a cationic germicide.

The evaluation of the resistance of micro-organisms is somewhat difficult. The established tests used with non-surface active agents do not always give accurate results when applied to the newer surface active germicides.

The cationic agents, particularly the quaternaries, have been found most resistive to the micro-organisms. Among the compounds producing favorable results are the alkylpyridinium halides and alkyl trimethyl ammonium halides. The cetyl radical of both of these groups gives optimum results. Good results were obtained, also, with hydrophobic groups in combination with a dimethyl benzyl ammonium group.

The quaternaries have been found satisfactory for several reasons, meeting many of the requirements of an ideal disinfectant. In the concentrations commonly used, they are practically colorless, odorless and tasteless; they are soluble in water and many organic solvents; they are relatively non-corrosive, active even in high dilutions, and have a high antibacterial power against both gram positive and gram negative organisms.

Some of the factors affecting germicidal activity are pH, temperature, concentration and presence of organic matter. The quaternaries are found to be more active in neutral, or alkaline solutions than in acid solutions. This action is opposite to that of the anionics, which have maximum effectiveness in solutions on the acid side.

In the concentrations used, the quaternaries are non-toxic and non-irritating. In medicine, they have been used for sterilization of the hands in gloveless surgery, in obstetrics, and in treating wounds and burns. Because of their detergent properties, they are ideal for routine hospital cleaning, etc. However, in such applications, more concentrated solutions are required. It is possible that quaternaries may be used as preservatives in pharmaceutical preparations. N. J. Harper, Chem. Age 62 No. 1605, 536-538 (1950).

Glycerine in Soap Products

Glycerine, as a component of toothpaste, soap, shampoos, and shaving creams, has a number of advantages, but involves disadvantages also. Because of its hygroscopic property it tends to decompose soaps; and in high percentages, it may be irritating to the skin.

Glycerine impairs the quality of toothpastes, as it is irritating to easily bleeding gums. However, ten to 20 per cent glycerine used with a silicic acid jelly base might be incorporated advantageously. A certain amount of chemically pure glycerine should be incorporated in hair preparations to confer gloss and softness to the hair. Glycerine is required in tar preparations which are used as hair products.

If kept within modest limits, about five per cent, it can be used advantageously in brushless shaving preparations, as it prevents the drying out of the product and also increases the softness and smoothness. One of its disadvantages is its tendency to de-

crease the lathering power. Glycerine is sometimes replaced by *d*-sorbitol, which has a narrower humectant range than that of glycerine, forming emulsions which are more stable to varying conditions. Soap (India) 3, No. 1, 18-21 (1950).

Surface Active Isomers

Surface activity is definitely related to position isomerism in surface active agents, such as the isomeric alkyl and dialkyl naphthalene sulfonates and isomeric sulfonates of diphenyl sulfoxide and diphenyl sulfone. In the case of the o-, m- and p- isomers of sodium n-butoxy benzoate, and other alkoxy derivatives of hydroxybenzoic acid, the surface activity decreases from para to ortho position. With more complicated bridged compounds, the order of changing activity may differ. Chem. B Eng'g News 28, No. 20, 1654 (1950).

Preferential Wetting

A technique for measuring preferential wetting of a fabric at an oil-water interface is described, which involves displacement of oils from the fibers. The sinking time of oil-wet fabric in passing through a solution of the sample detergent, is measured. By this technique molecularly dehydrated phosphates show sinking times of only a few seconds, while alkaline salts such as sodium silicate and sodium carbonate, and neutral salts such as sodium sulfate and sodium chloride, show sinking times of over 60 seconds.

It seems probable that the rapid sinking times achieved with the molecularly dehydrated phosphate is associated with the large negative charges on the anions of these compounds. The mechanism postulated is sorption of the anions which leads to a strong negative charge on the fibers, with consequent attraction of the electropositive water solution. This hypothesis is supported by the fact that the other compounds tested which furnish polyvalent anions behaved similarly, namely, potassium ferrocyanide and sodium carboxymethylcellulose.

Data are presented which indicate that the cation of a builder is of limited importance in building an MAYPON MAYPON MAYPON MAYPON MAYPON

for sudsing and deterging purposes...

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anion-active agent. This was shown by measuring surface tension and interfacial tension of compounds commonly used as builders, at concentrations chosen to yield the same sodium ion concentration. Molecularly dehydrated phosphates are unusually effective builders for both anion-active and nonionic detergents on cottons. Of the molecularly dehydrated phosphates, sodium tetraphosphate showed the lower sinking time with the age of solution 10-15 minutes, both alone and in the presence of "Nacconol NR." I. Reich and F. D. Snell, Ind. Eng. Chem. 41, 2797-2800 (1949).

Aromatic Acetals for Soap

Among the useful raw materials for compounding soap perfuming materials are the acetals. These are odorous or aromatic substances, usually liquid, especially stable in alkaline media. They are produced by the condensation of monohydric or dihydric alcohols with either an aromatic or aliphatic aldehyde.

Resedalia acetal is a colorless oil having the aroma of reseda mignonette, and desirable lasting qualities. A soap made with this compound showed no loss in odor even after 10 months. Phenyl acetyldehyde dimethyl acetal is a well known perfume base with a green rose leaf aroma. It has been used for odors in soaps for some time. The dimethyl acetal of alpha amyl cinnamic aldehyde is a light lemon colored oil with a heavy jasmin note suggesting its aldehyde. The acetal has greater staying qualities, and is of much finer fragrance than the aldehyde. It does not discolor, and this with its permanence makes it a favorable material for soaps. Carl K. Wellenkamp. Soap Perfumery & Cosmetics, 23, No. 2, 159-160 (1950).

Detergent Evaluation

Detergency tests on cotton and wool test cloths, for evaluating the effectiveness of 10 soaps and 27 synthetic detergents under standardized conditions, indicated that synthetic detergents in all concentrations removed less soil from the cotton test cloth than did the soap samples; but that, in general, synthetics were more

Fibers and Soil Removal

The main structural features of fibers that are of importance in connection with soil removal are: (1) The presence of polar linkages with free secondary valencies, and (2) the long twisted micelles and macromolecules which compose fibers. The bearing of the two features on the question of soiling will be clearly seen when the methods by which soiling occurs are considered. The causes of soiling are as follows:

- (1) Relatively large particles adhering mechanically to the fiber;
- (2) In most cases it is likely that the particles are bound to the fiber by secondary valencies between groups of atoms on the particles and the hydroxyl or amino groups of the fibers, since these latter groups give rise to secondary valencies.
- (3) Occasionally, but infrequently, the particles of soil may be bound by primary valencies to the fiber. This is only likely to happen if

the soil is itself of the nature of a dye which contains groups which can form salt-linkages with the polar groups of the fiber.

(4) Relatively small molecules of soil may be held mechanically between the large fiber molecules. This applies particularly to natural cellulosic fibers in which the molecules have a long spiral form.

Soaps and synthetic detergents are ideal for soil removal, since there is no reason to fear that they will attack the primary bonds and cause degradation of the fiber. They will break down secondary valencies and will themselves adhere to soil particles. Removal of deeply imbedded soil may require a preliminary steeping in a wetting agent. This should enable the particles to find their way to the surface of the fibers, from which they may be removed by normal washing methods. H. Staudinger, Soap, Perfumery & Cosmetics 22, 383, 392 (1949).

effective in soil removal from the wool test fabric.

Built synthetics were somewhat more efficient than the unbuilt product in both distilled and hard water detergency tests on wool. Tests with both cotton and wool cloths indicated that soaps without builders and the built soaps removed about as much soil as the standard soap.

The built non-ionics were among the most efficient of the detergents in tests with wool. The cationic detergents were found inefficient in soil removal from the cotton test fabric. M. S. Furry, Amer. Dyestuff Reporter 39, No. 7, 209-212 (1950).

New Wool Scouring Method

A new method for wool scouring employs suint salts, which are the dried perspiration of sheep. Chemically, the salts are a mixture of fatty acid soaps which, in themselves, are effective as emulsifying agents. The presence of small amounts of alcohol's improves the power of emulsification. Correct adjustment of alcohol concentration will allow recovery of the grease.

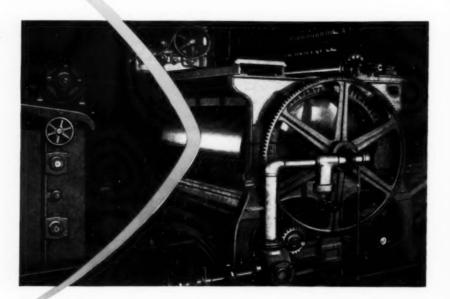
Soil Adsorption of Soap

Detergency evaluation studies instigated resea.ch on the adsorption of soap on a variety of carbonaceous materials used as fiber soiling media. The method of determining the adsorption was to shake a weighed amount of carbon with the soap solution, filter, and check the filtrate for content of fatty acid and alkali. Sodium myristate was used as the adsorbate in aqueous solutions of .1 per cent at 70°C., absorbing on a series of carbon blacks and activated charcoal.

In all cases, the adsorption of fatty acid was higher than that of the alkali, indicating that this property was characteristic of carbonaceous materials in general. Adsorption of both the fatty acid and alkali increased in a regular manner with the decrease of carbon particle size, that is, as the surface area increased. The adsorption of soap by cocoanut shell cha: coal was considerably higher than that obtained with any of the carbon blacks, which may be attributed to the porous nature of the material resulting in a very large specific surface. Canadian J. of Research 27, 426-8 (1949).



TEMPERATURE SHOULDN'T VARY on a chilling roll, either!



REQUIREMENT: To maintain uniformity in the layer of soap on the chilling roll, the temperature must be uniform at all points on the surface of both the feed and chilling rolls. This is an important requirement—for any lack of uniformity at this point cannot be remedied in subsequent processing.

THE PROCTOR ANSWER: In the design of the Proctor automatic flake soap system, adequate internal piping and spray systems are provided in both rolls to keep the surface temperature at the desired reading on the complete surface of the roll. In this way, every bit of the liquid soap is subjected to the same temperature during the cooling process. The result is uniformity in the consistency of the soap... uniformity which carries through the rest of the processing.

Temperature control is maintained not only in the chilling operation—but also throughout the drying operation. Temperature in each dryer compartment is automatically controlled by an air operated, recording type temperature control.

Accurate control of temperatures during chilling and drying is one of the ways in which the Proctor automatic flake soap system is daily meeting the rigid requirements of modern soap makers. It combines the precision engineered chilling machine, which forms uniform ribbons—with a drying system designed for accurately controlled drying.

That is why the Proctor automatic flake soap system has been so tremendously successful and the choice of the nation's leading soap manufacturers.

As you consider your own plant processing—you may find it interesting to see how this Proctor automatic "precision engineered" system may be employed profitably. Write today for the latest information.

COST CONSCIOUS?

Let Proctor engineers show you in black and white how the overall efficiency and completely automatic operation of this system reduces production costs.

Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending

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U.S.I. CHEMICAL NEWS

June

A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries

1950

Hydrocarbon Synthesis Source of Acetaldehyde And Propionaldehyde

Compounds Are Important Raw Materials for Syntheses

The hydrocarbon synthesis will soon provide a new source of two members of the chemically active aldehyde series, acetaldehyde and propionaldehyde. These compounds are important intermediates in countless chemical syntheses. The two aldehydes will be available from U.S.I. shortly after plant operations are initiated.

operations are initiated.

An extremely volatile, colorless liquid with a strong, penetrating odor, acetaldehyde is widely used as a chemical raw material in the production of other organic chemicals. It is used in the manufacture of pentaerythritol, a polyhydric alcohol important in the production of alkyd resins, and in making the resin, polyvinyl acetal.

Currently, the largest use of acetaldehyde is to produce acetic acid by catalytic oxidation. The U.S.I. acetaldehyde to come from the synthesis will be carefully separated from a water solution and subsequently purified to most rigid quality specifications.

most rigid quality specifications.

Propionaldehyde has physical properties between those of acetaldehyde and butyraldehyde. The reactivity of the aldehyde group and the ready replacement of the alpha hydrogen makes it of wide use in chemical syn-

Wetting, Penetration Of Surface-Active Agents Measured by New Method

A new method has reportedly been devised to determine comparative wetting and penetrating qualities of surface-active agents. The new technique involves adding a definite volume of surface-active agent solution to the most porous of a series of five stainless steel filtering clements of varying porosities. A record is made of the time in seconds required to deliver the first drop and the first milliliter of solution. Based on the time for delivery under each category, a rating is given and the comparative wetting and penetration of each surface-active agent studied are evaluated, according to the scientists who developed the new technique.

The same method is said to be applicable for copper, bronze, medium steel, glass, canvas, cloth, and other textile materials; it reportedly can also be used in research on metal cleaning problems.

New Book on Safe Handling Of Radioactive Isotopes

A new 30-page booklet on safe handling of radioactive isotopes, conveniently subdivided for ready reference, is said to include tabulations of properties of the principal isotopes.

U.S.I. Launches 1950 Program For Truck-Crop Insect Control

On-the-Job Tests in 1949 Proved U.S.I.'s CPR Dust Base
Is Faster, More Versatile, Longer Lasting than Rotenone

In 1949 American truck farmers, who use over a billion pounds of insecticides each year, found a new, powerful ally in their war against crop insects — U.S.I.'s CPR Dust Base. This combination of piperonyl cyclonene, pyrethrins,

and rotenone was thoroughly field-proved last year and test results show that CPR:

1. Proved effective against a wide variety of insects, including certain destructive insects

Two New Free Booklets on Farm Insect Control

Tips on economical insect control — on the dairy farm and on the truck farm — are contained in two new free booklets available now from U.S.I. "Controlling Insects on the Dairy Farm" presents important data on Pyrenones*

and includes frank discussions of: the dollar side of insect control; choosing an insecticide; how to apply insecticides; how to avoid toxic hazards and contamination of milk; and effectiveness and range of control.

The new, informative booklet on truckcrop insect control, "CPR," presents data on

the impressive results achieved in actual onthe-job tests of CPR conducted during 1949. It also contains important information on just what insects CPR controls and how CPR prevents the hazard of toxic residues. For free copies, write the Editor, U.S.I. Chemical News.



*Reg. U.S. Pat. Off.

Methionine-Supplemented Soybean Meal Is Found Equivalent to Egg Protein

Recent work at a leading eastern university has shown that the protein of soybean meal has a biological value equal to that of whole egg protein when supplemented with methionine. The addition of approximately 0.2 percent methionine to soybean meal resulted in a protein which was retained as effectively by the animal as whole egg protein. The addition of whole egg to the ration containing soybean meal and methionine did not further enhance the value of the protein in the experimental rations. The work was carried out on hogs using a diet made up of 10% protein derived entirely from soybean meal.



In 1949, their first season of commercial use, CPR-based insecticides proved they have the versatility needed for all-around, all-season truck-crop insect control.

against which rotenone alone is not too effective, such as the green clover worm, the diamond back moth and the imported cabbage worm;

2. Demonstrated a killing potency six times faster than rotenone itself, with CPR effecting a kill in 12 hours and rotenone in 72 hours against the same insects;

3. Indicated a more effective residual power, with CPR lasting from 5 to 6 days, and rotenone from 2 to 3 days, under field conditions.

Prevents Toxic-Residue Hazards

CPR Dust Base was introduced by U. S. Industrial Chemicals because of the apparent need of an insecticide that combined low toxicity with effectiveness. Growers can use CPR-based insecticides right up to and during harvest. No special processes are needed to remove deposits from CPR-treated crops. The washings ordinarily given to fresh vegetables before canning or packing are sufficient, because CPR leaves no toxic residues.

Nation-wide Tests

Last year's investigations of CPR dusts had the cooperation of 31 federal and state-supported institutions and 15 actual or potential

customers in tests on insects destructive to small fruits, vegetable crops, and ornamentals.

MORE

June

U.S.I. CHEMICAL NEWS

1950

CONTINUED

Insect Control

The dust was used in practically all sections of the country, both commercially and experimentally, throughout the year. The positive results against a wide range of insect life are sufficiently conclusive to regard CPR Dust Base Materials as ideal general purpose insecticides for use in the vegetable, small fruit, and ornamental field.

CPR-based insecticides were shown to be particularly outstanding against the principal



This is what happens to healthy bean plants when Mexican bean beetles move in. Once an infestation reaches the pupae stage shown above, the damage is done. A treatment with CPR when beetles first appeared could have pre-

insects affecting beans, including the Mexican bean beetle, the bean leaf beetle, the green clover worm and bean thrips - also against worms and loopers on cruciferous crops, flea beetles, blister beetles and many other leafeating insects. Other recommendations for CPR formulations, made possible by reported observations, include onion thrips, corn-ear worm, diamond back moth, melon worm, pickle worm, squash vine borer, omnivorous leaf tier, lygus campestris, asparagus beetle, webworm, and box-elder bug, the latter an ornamental pest.

Uses Superheated Steam In Spray Painting

Recent research experiments indicate use of superheated steam in spray painting instead of compressed air has these advantages: one pass application for 2 mils of film, and increased efficiency (less overspray). Boiler employed in the experiments is described as self-regulating and free of flame or fire hazards and all low-water danger. It is said to have no coils or tubes to burn out, scale, or to need replacing.

CONTINUED

Aldehydes

thesis. Propionaldehyde condenses with itself to form an aldol which may be dehydrated and hydrogenated to yield 2-methyl pentanol, a hexyl alcohol of promise in the manufacture of plasticizers. With formaldehyde, propionaldehyde condenses to form pentaglycerol, a trihydroxy alcohol superior to glycerine and pentaerythritol for some uses. Polyvinyl propional resins have properties similar to polyvinyl acetal but better adapted to some applications.

Propionaldehyde may be used to modify thermosetting resins for which other aldehydes are raw materials. It may be oxidized to propionic acid or hydrogenated to n-propyl alcohol. Condensation with amines produces rubber accelerators. Reactivity of the material makes possible the synthesis of materials of interest to the pharmaceutical industry.

Specifications

Propionaldehyde Content by wt	96.0% min.
Specific Gravity 20/20°C. (in air)	0.803 to 0.809
Color (ASTM D-268)	Water White
Acidity, % by wt. as propionic	0.5% max.
Distillation Range	4°C., incl. 47.9
Non-valatile matter, gm/100 cc.,	
Max	0.005
Heavy Metals, % by wt., Max (Calc. as Iron)	0.005
Oder	Characteristic

TECHNICAL DEVELOPMENTS

Further information regarding the manufacturers of these items may be obtained by writing U.S.I.

A new-type container for packaging toiletries, decdorants, medicinal and household creams and waxes, reportedly combines features of the collapsible tube and the "hard-covered" container. A twist of the bottom of the container is said to force ingredients up and out, leaving the cylinder intact. Tube may be readily emptied and exact amounts required can be delivered each time, the makers state. (No. 569)

An electric motor run continuously on a small flashlight battery, 1½" high by 1½" wide, has a speed of approximately 10,000 rpm on a 3-volt battery, the manufacturers claim. (No. 570)

A new washable non-skid floor coating for walk-in deep-freezes and refrigerators, slaughter houses, hotel kitchens, and hospitals, is said to be unaffected by fruit juices, butter, milk, and

To restrain exidation of soaps and resulting ran-cidity and discoloration, an amino compound which can be employed in either soda or potash scaps is available. It is said not to impart odor or color to soaps or to affect their efficiencies.

(No. 572)

To simplify spray painting and permit control of "spray pattern" width from slightly more than an inch to over 12 inches, a new spray gun with a controllable nozzle and 4-finger trigger is on the market. (No. 573)

An automatic pipetie for safe, accurate, convenient dispensing of liquids used routinely in small quantities, will handle volumes up to 2.0 ml., it is claimed. An adept operator can use the pipetie 20 to 30 times per minute, according to the makers.

A new stopper and unloading device for emergency use on tank cars, said to stop wild flow as soon as it is put in place, permits unloading of contents without necessity of unloading overhead.

(No. 575)

An aluminum foil-backed wrapping paper for vaportight packaging of new and spare parts is described as waterproof, scutiproof, and resistant to oils, greases, mild alkalies and acids. (No. 576)

For imparting fire-retardant properties to all types of cellulosic fabrics, a new low-cost chemical composition is reported available. (No. 577)

Viscosity measurements directly in centipolse units without need for calculations are reported possible with a new instrument providing highly reproducible results, having unusual sensitivity over its full range, simple to operate, and applicable for any liquid of the free-flowing, Newtonian type.

PRODUCTS OF U.S. 1.

ALCOHOLS
Amyl Alcohol (Isoamyl Alcohol)
Butanol (Normal-Butyl Alcohol)
Fusel Oil—Refined
Propanol (Normal-Propyl Alcohol)

Propanol (Normal-Propyl Alcohol)
Ethanol (Ethyl Alcehel)
Specially Denatured—all regular
and anhydrous formulas
Completely Denatured—all regular
and anhydrous formulas
Pure—190 proof U.S.P.,
Absolute—200 Proof
Solox*—proprietary solvent—
regular and anhydrous
ANTLEBERTEE

ANTI-FREEZES
Super Pyro* Anti-Freeze
U.S.I. Permanent Anti-Freeze

ACETIC ESTERS
Amyl Acetate—Commercial and High Test

Butyl Acetate Ethyl Acetate—all grades Normal-Propyl Acetate **OXALIC ESTERS** Dibutyl Oxalate

PHTHALIC ESTERS Diamyl Phthalate Dibutyl Phthalate Diethyl Phthalate Diisooctyl Phthalate

OTHER ESTERS Diatol* Diethyl Carbonate Ethyl Chloroformate INTERMEDIATES

Acetoacetanilide
Acetoacet-ortho-chloroanilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloroanilide

Ethyl Acetoacetate Ethyl Benzoylacetate Ethyl Sodium Oxalacetate

ETHERS
Ethyl Ether, U.S.P.
Ethyl Ether, Absolute—A.C.S.
ACETONE — A.C.S.

FEED PRODUCTS EED PRODUCTS
Choline Concentrates
Curbay B-G*
DL-Methionine
Riboflavin Concentrates
Special Liquid Curbay*
U.S.I. Animal Protein Factor
Supplement
Vacatone* 40

RESINS (Synthetic and Natural)
Arochem"—modified types
Arofene"—pure phenolics
Aroflat—for special flat finishes

Aroplaz^o—alkyds and allied materials Congo Gums—raw, fused & esterified Ester Gums—all types Natural Resins—all standard grades

Natural Resins—all standard grades
INSECTICIDE MATERIALS
CPR Concentrates: Liquid & Dust
Piperonyl Butoxide
Piperonyl Cyclonene
Pyrenone" Concentrates: Liquid & Dust
Pyrethrum Products: Liquid & Dust
Rotenone Products: Liquid & Dust INSECTIFUGE MATERIALS

Indalone" Triple-Mix Repellents

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Collodions
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BRANCHES IN ALL PRINCIPAL CITIES

PRODUCTION CLINIC

By E. G. THOMSSEN, Ph.D.

ORROSION is reported to cost the United States close to six billion dollars annually. This amount covers more than just deterioration of plant machinery and equipment. The largest losses are caused by deterioration of paint, injuries to gasoline and Diesel type engines, reduction or contamination of underground water supplies and damage to piping.

Just how much of the estimated annual cost of corrosion may be apportioned to deterioration of machinery and equipment in factories is difficult to ascertain. It is true that a considerable amount of all types of corrosion may be retarded or prevented entirely by more careful and more constant attention in inspecting plants for the discovery and correction of corrosion losses before they become serious.

In numerous plants observed by the writer, those indicating poor housekeeping also showed evidences of corrosion brought about by carelessness and oversight. We hear considerable these days about the conservation of resources. In the face of the waste that takes place unnecessarily in the destruction of buildings, piping, machinery and equipment, it is worthwhile to consider ways to reduce such losses.

Those of us who had to contend with the corrosion problem 25 or more years ago envy present day materials that overcome easily the difficulties of the earlier days. Then we had to depend largely upon wood, lead, copper, aluminum and glass linings, rubber and ceramics for equipment that could not be built of steel or cast iron. Stainless steels were expensive for ordinary work and nickel was used in rare cases only. Plastics, rust resistors, rubber like coatings and corrosion resistant paints were practically unknown. When a corrosion prob-

lem presented itself in processing work or maintenance, considerable expenditure was necessary for its solution. Even the selection of corrosion proof



DR. THOMSSEN

material was uncertain because of the unavailability of data covering resistance toward acids and other corrosive chemicals over long periods of time.

Today, the problem of selecting corrosion proof materials is greatly simplified. Instead of buying a cumbersome wooden tank and having it lined with lead to resist fatty acids, for example, one merely uses a steel tank and has it lined with a thermosetting plastic by a firm specializing in the work. If there is a break in the surface it may be repaired quickly without the necessity of calling in a lead burner.

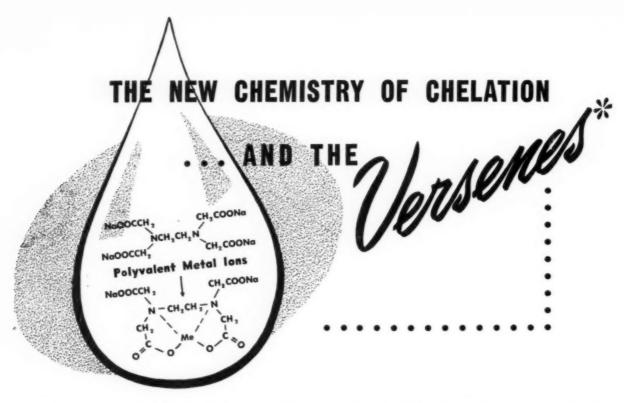
MONG other types of resistant materials available, there are plastic piping and tubing and paints that resist corrosive chemicals, gases and humidity. Protective coatings may be sprayed on wood, concrete or metal surfaces and remain intact for years. New alloys and alloy lined steels are to be had for processing machinery and can meet every contingency that may arise. Even used equipment may

be sprayed, brushed or dipped with liquid preparations to render it corrosion proof. Ordinary paints used to protect building surfaces and concrete floors no longer are subject to such great degrees of discoloration, checking or abrasion as formerly. Great progress has been made with corrosion resistant materials in recent years.

The size of our corrosion bill is a sad commentary on our efforts to check such losses in view of advances in materials and methods. While methods of cutting down on corrosion losses are available, there are many smaller plants in the soap and sanitary chemicals field which do not give sufficient attention to these means of reducing factory operating costs. Frequently, we observe fatty acids being handled in black iron tanks; acids being dished out in common metal dippers; cheap types of whitewash and casein paints being applied to brick factory walls; concrete floors crumbling from the action of greases and chemicals; exposed iron piping rusting in humid places, and similar cases of disregard for deterioration caused by corrosion that could be corrected easily. Such conditions are inexcusable and usually are the result of poor housekeeping or foolish penny pinching.

When a plant is being run profitably, ample attention to such details is a "must." Losses stemming from insufficient attention to corrosion prevention many times offset the assumed economies of getting along with eroded equipment or shop worn surroundings. Very often a few minutes work with the correct paint and brush will save many dollars. Instead, in too many instances, deterioration is allowed to go unchecked until expensive repairs are needed.

A conference called by the United Nations is to be held in August to consider the conservation of resources. Corrosion losses undoubtedly will be discussed at the meeting. The conference should be of value to plant men interested in ascertaining if newer and better methods of corrosion control are available. For those having corrosion problems, attendance at the conference would seem to be imperative.



Your product or process can be improved by the new chemistry of chelation. Evolved from a generation of experience in pioneering the polyamines, Bersworth now gives you exacting chemical control over cations in solution through the use of the Versenes*.

The Versenes* are extremely versatile organic chelating agents of exceptional stability. They control metallic ions with mathematical exactitude. This control may be applied to completely deactivate prooxidant or other troublesome ions or to give controlled activation for catalytic processes.

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- · Dissolving grease and food deposits
- · Purifying organic materials
- Preventing oxidation and rancidity of fats, oils, soaps, fatty acids and other organic materials
- · Eliminating or reducing discoloration or contamination
- · Increasing cleansing and foaming action of soap

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West Coast Agent: Griffin Chemical Co., San Francisco-Los Angeles-Warehouse Stocks

New York Agent: Siegel Chemical Co., One Hanson Place, Brooklyn 17, N. Y.—Warehouse Stocks

Chicago Agent: Kraft Chemical Co., Inc., 917 W. 18th St., Chicago—Warehouse Stocks

Adhesive Uses

ODERN adhesives are being **W** used for applications which are both ingenious and labor saving. Armstrong Cork Company, Lancaster, Pa., is offering advice on their adhesives which may simplify production problems. The Armstrong product is being used in many directions to fasten nonporous materials together rapidly. Metal washroom fixtures may be glued readily to porcelain walls or metal trim fastened to metal with these adhesives. Armstrong offers their services in developing new adhesives for special purposes or working out problems with older materials.

Filter Medium

BROWN CO., New York, make interesting claims for their "Solka-Floc," a cellulose filter aid that removes iron by adsorption. If desired the filter cake may be washed and ashed for recovery of metals. This ash has even been sold for use in other products, such as animal feeds, etc. The company's technical service division is in a position to give aid on filtration problems.

Automatic Solutionizer

THE automatic solutionizer made by Independent Specialties, Chicago, is reported to be received favorably by many firms. This well-built, fool-proof device accurately dispenses detergents for dishwashing machines. Full information may be had by writing the company.

New Freight Elevator

POWERFUL, light - weight, "freight elevator" known as a "Pick-Up" Lift Gate which attaches to the rear of any ½ and ¾ ton pick-up truck has just been announced by Anthony Co. of Streator, Ill., producers of larger "Lift Gate" models for heavier trucks and semi-trailers.

This new "Pick-Up" Lift Gate is moderately priced and should find a large number of applications with the pick-up type commercial truck. The gate is operated by two powerful hydraulic hoist cylinders. By means of the device the driver can lower or elevate a load and hold it at certain heights. It is possible to handle heavy,

awkward or frail commodities of up to 800 pounds in weight at curb or ground level. A single lever safety control is designed to prevent accidents. Plants, truckers and service companies all recognize the safety advantages of the "Lift Gate" for elevating loads. Further information is available through the company.

Improved Light

THE "Slimline" lighting fixture made by Sylvania Electric Co., New York, is meeting with success as an improved type of lighting for industrial plants. It is engineered for high light output and low surface brightness. A rugged 20 gauge steel chassis unit equipped with turned down reflector edges for easy cleaning, the new fixture is available in lines of eight or four feet long. These fixtures give instant start and are built for long life.

Narrow Aisle Pallet Stacker

YON-RAYMOND CORP. of New York is offering a pallet stacker known as the "Spacemaker." This device is especially designed to handle loads in narrow aisles. It will handle a stack at right angles from a six ft. aisle or, in congested warehouses, box type skids can be tiered in five ft. aisles. It comes in three types. One tiers platform skids; the second, single face pallets; the third, two face pallets. Further information is available upon request.

Folder on Can Embossing

A four page folder on its No. 47 rotary can lid embossing machine was issued recently by Jas. H. Matthews & Co., Pittsburgh, Pa.

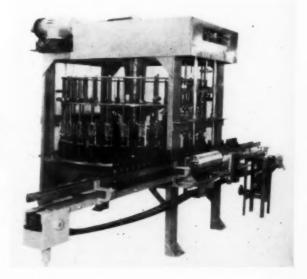
New MRM Liquid Filler

A special 30 spout automatic rotary liquid filling machine with overhead drive was completed recently by MRM Co., Brooklyn. It was specifically designed for filling highly corrosive materials such as sodium hypochlorite bleach solutions and features stainless steel construction for all parts in contact with the solution. Non-metallic parts in contact with the solution are "Lucite," "Tygon" and "Koroseal." The 50 gallon capacity tank is "Koroseal" lined and removable for cleaning.

Nozzles are of stainless steel and the spouts are of "Lucite." A slipfit collar on the nozzle holds the spout securely in place, insuring air tight and leakproof fit. Nozzles can be quickly removed for cleaning by loosening the collar bolt.

The new filling machine can fill fractional ounces up to gallons. All-sizes with the exception of gallons are filled with one type nozzle. Gallon sizes are filled with alternate nozzles. The filler requires a floor space of about seven by 12 feet, including the feed and discharge conveyor. The machine is equipped with a one H.P. main drive motor, a 1/3 H.P. conveyor motor and a two H.P. pump motor.

New 30 - spout automatic rotary liquid filling machine with overhead drive completed recently by MRM Co., Brooklyn.



FACTORY RECONDITIONING will increase your profits!

There are two principal reasons for excessive milling costs.

- 1. Mechanical wear due to extra-long service.
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It will pay you to check each mill's production against its output when new. When a general overhaul is indicated LEHMANN factory-reconditioning is the dependable way to restore your mills to their original efficiency. And factoryreconditioning is faster now! Two new factors-(a) expanded facilities and (b) our new chemical plant for cleaning parts and flushing out foreign deposits-are making quick deliveries the rule. And with factory-reconditioning LEHMANN mastercraftsmen do a thorough job-no detail contributing to high production efficiency is overlooked. Your production returns

will far outweigh the nominal cost. So send your mills to us. Keep your production on the profit-making side. Our Service Department will give you full information.



ment parts may also be ob-It costs more NOT to tained as required. Factory-recondition



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Are you looking for a good LEMON odor for your soap product?

NYA'S LEMON SOAP ODORS

are very popular because they create a clean and agreeable fragrance whether

used by the housewife or in soap dispensers. Our laboratories have worked for years on special LEMON odors in all price brackets and for many purposes, such as, Soap Powder, Liquid Soap, Framed Bar Soap and Milled Soap. Write us for free samples on your business letterhead and specify purpose and price range.

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NEW YORK AROMATICS CORP.

Perfume Compounds, Essential Oils & Aromatic Chemicals

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Folder on "Tergitol"

A new 8-page folder entitled "'Tergitol' Surface-Active Agents" is now available from Carbide and Carbon Chemicals Division, Union Carbide and Carbon Corporation. Properties, uses, and specifications of "Tergitol" wetting agents 7 and P-28 and of "Tergitol" penetrants 4, 08, and EH are given. Data on average wetting times for the different products in various acid, base, and salt solutions are presented, along with information on the effects of organic solvents on wetting time. A useful table for the selection of the most efficient "Tergitol" surface-active agent for any given application is featured.

Snell Toxicology Booklet

A new 8-page booklet outlining its services in connection with the toxicological testing of drugs, cosmetics, etc. is being distributed by Foster D. Snell, Inc., New York. Copies available on request.

Breuer Tornado Folder

A folder on its 6000 series allpurpose Tornado floor machines was issued recently by Breuer Electric Manufacturing Co., Chicago. In addition to illustrations showing the machine in operation for different purposes, construction materials, operation and applications of the Tornado model are given in detail. Also illustrated and described are the accessories for the new floor machine.

Stainless Steel Beakers

A stainless steel beaker with a pouring lip was announced recently by Arthur S. Pine Co., Chicago. The new "Lanco Stainless Steel Beaker" comes in a range of sizes from 50 ml. to 4000 ml. to retail from \$1 to \$4.65. The beakers are fabricated from 18-8 stainless steel in gauge proportioned to capacity.

New Bulletin on "Freon"

A new technical Bulletin, B-2, on its "Freon" fluorinated hydrocarbons used as propellants, etc., was announced recently by Kinetic Chemicals, Inc., Wilmington. The bulletin contains a description of the physical, chemical and physiological properties of six "Freon" products now available commercially, as well as on compounds still in pilot plant stages. A table of the physical properties of the material is included.

New Calgon Bulletin

A new 16-page illustrated bulletin, printed in two colors, was announced recently by Calgon, Inc., Pittsburgh. Bearing the title, "Better Ways to Cleaner Wares," the booklet describes and illustrates the use of "Calgonite" mechanical dishwashing compound, and the mechanical dispenser and electronic control of the same name. Also covered are four of the company's special compounds.

S. & S. Paper Box Unit

- + -

Stokes & Smith Co., Philadelphia, subsidiary of Food Machinery & Chemical Corp., has issued a folder describing the "Stokesfeed" paper box gluing, feeding and wrapping unit displayed at the recent AMA Packaging Exposition in Chicago. The unit has a capacity of 40 boxes or lids per minute, and is readily adjustable for a wide range of sizes.

Soiled Wool Fabric

The availability of "FDS Artificially Soiled Wool" fabric was announced recently by Foster D. Snell, Inc., New York. The new soiled wool fabric complements the soiled cotton fabric announced last spring by the firm. The soiled wool comes in packages of nine four x 12 inch swatches. Individual packages cost \$4.50 each.

The artificial soil used in the wool has been compounded to resemble closely the natural soil that is found in soiled wool garments. After soiling, the cloth is washed, rinsed and run through wringers twice to obtain an unwrinkled finish. It is dried overnight in a constant humidity room, with a protective covering to keep dust from bonding to the soil. On Hunter Reflectometer readings it must agree with a reflectance of 14.5 per cent with a tolerance of ±2.5 per cent. The soiled wool is used for light duty detergents.

Describes Optical Bleaches

White dyes or optical bleaches are described in the April issue of *Dyelines and Bylines*, house magazine of American Cyanamid Co., Calco Chemical Division, Bound Brook, N. J. What they are, how they operate and the five main requirements for an optical bleach are described in the publication.

C-P-P Soap Guide

A new, "Handy Soap Buying Guide" for the trade was issued recently by Colgate-Palmolive-Peet Co., Jersey City, N. J. It carries a complete resume of the company's line of soaps, synthetic detergents, washing powders, bar and dispenser soaps, including sizes and units available. Product descriptions, packs and other information are also given. Copies of the Guide are available without cost by writing the Industrial Department at Jersey City 2.

New Essential Chems. Soap

"Green Dolphin" theatre soap was announced recently by Essential Chemicals Co., Milwaukee. Available for distribution through sanitary supply firms, and in some cases under private label, the new product is designed as an all-purpose cleaner. It may be dissolved in either cold or warm water.

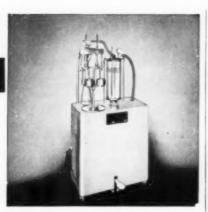
"CPR" Dust Base Booklet

A new, eight-page booklet describing the application and uses of "CPR Dust Base," its name for insecticide dusts formed by combinations of piperonyl cyclonene, pyrethrins and rotenone, was announced recently by U. S. Industrial Chemicals, Inc., New York. The range of effectiveness of "CPR" is outlined in the booklet, which includes field test data and other information on features of the material. Copies are available by writing the company at 60 E. 42nd St., New York 17.

Arthur C. Brown Dies

Arthur Clayton Brown, formerly associated with the David S. Brown & Co., New York soap perfume manufacturers, died recently.

S of Containers Per 8 Hour Day H C Clean and Fill 50 to 75 Gross S d ۵ Σ 0



The U. S. SEMI-AUTOMATIC MODEL B-2 VACUUM FILLER

The most comprehensive filler for handfed operation. Interchangeable filling stems for any liquid or semi-liquid. Interchangeable parts for various size containers. Fills from any size storage container. Portable, motor equipped with cord and plug.

BOTH are 2-Tube Machines and handle two containers at a time. Both are fully automatic in operation except for placing and removing of containers (two at a time) requiring only ordinary skill for fast efficient operation.

Both machines are portable; can be used separately or in combination to clean and fill 50 to 75 gross a day. Write for the "Model B-2" and the "E-Z" Bulletins.

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THE E-Z TWO-TUBE CLEANER

Cleans 15 to 30 containers per minute by blasting with compressed air. Supplied portable with compressor and motor with cord and plug or with air filter for connection to your compressed air line.

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DISINFECTANT INDUSTRIES

CRESOLS

U.S.P., Meta, Para, Ortho, and special fractions—to all specifications.

CRESYLIC ACIDS: The entire range—in standard grades or to specifications.

NAPHTHALENE: Crude and refined prime white —in chipped, crystal, flake and powdered form.

XYLENOLS: Low boiling, high boiling, symmetrical.

TAR ACID OILS: In all grades, from 10% to 75% tar acid content, or of specified phenol coefficiency, carefully blended.

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PRODUCTS AND PROCESSES

Jell-Type Detergents

Sodium carboxymethyl cellulose added to certain non ionics, such as polyethylene alkylphenol, results in jell type products with low lather properties. A higher' lather forming product is made with methyl ethyl cellulose.

Gelling can be avoided in certain liquid detergents by using a special SCMC (i.e., one containing not less than .7 sodium carboxy methyl group per anhydroglucose unit of cellulose). Manuf. Chem. 21, No. 4, 172 (1950).

Surface Active Agents

Good wetting properties are associated with the alkyl aryl sulfonates which are formed by incorporating alkyl side chains of two to 14 carbons with aromatic compounds such as benzene, naphthalene, or toluene and sulfonating the resulting compound. Detergency may be improved by building with sodium sulfate and alkali. The sulfated fatty acids have fairly good rewetting properties; in the presence of alkalis, they also have fairly good detergency. B. J. Garceau, Amer. Dyestuff Reporter 39, No. 3, 87-90 (1950).

Carnauba Auto Polish

Automobile finishes are protected best from the elements by first cleaning and then waxing the surface regularly. Combination cleaning-waxing products, although requiring less work, provide little protection to the auto finish. Carnauba wax, in its refined state, has been recognized as one of the best basic materials for car waxes. However, its high cost excludes it from the cheaper products, or it is included in inadequate quantities.

Liquid and paste auto waxes with high carnauba wax concentrations may be prepared without the use of softer waxes as lubricants. These fluid preparations may be applied by hand or by spraying, producing a continuous film of carnauba wax on the car finish.

Several of the waxes are available for use in power sprayers, and some are sold in low pressure aerosol cans. Cleaned cars can be sprayed with a power sprayer in five minutes, while the aerosols may take from 10-15 minutes. The formulations consist primarily of carnauba wax in light mineral solvents, and may contain synthetic waxes and paraffin. Some water emulsion products are available, but these do not yield films which resist washing as well as the solvent base products.

Hand spraying of the wax has not proved very satisfactory, usually because too heavy applications of wax result. A. E. Moore, *Chemical Industries* 66, No. 3 385-392 (1950).

Liquid Glass Polish

A liquid glass cleaner on the order of current commercial "glass waxes" contains:

	er cent
"Veegum"	2.2
Water	68.8
Diethylene glycol	8.9
"Tween 60"	 89.
Ammonia (27 per cent) .	
Kerosene, deodorized	4.5
"Celite Super Floss"	 4.5

Another window cleaner is composed of isopropyl alcohol, a wetting agent and dye. *Manuf. Chem.* 21, No. 3, 129 (1950).

High Urea Toothpaste

A toothpaste claimed to be completely stable and safe, providing about the same amount of active ammonium ingredient in the mouth as the powder product, contains the following percentages of ingredients: urea, 13.0; dibasic ammonium phosphate, 3.0; excipients, 25.0; abrasives, 38.0; detergents, 2.0; chlorophenyl derivative ("Boxin"), .25; flavor, 1.75; and water to make 100.0.

Another ammoniated toothpaste is based on the use of ammonium hydroxide instead of urea dibasic ammonium phosphate. M. A. Lesser, Drug and Cosmetic Industry 66, No. 2 147-153 (1950).

New Fungicides

Metal salts of dithiocarbamic acid and ethylene bisdithiocarbamic acid are used widely as fungicides. Their action is inherent in the dithiocarbamate grouping rather than in a decomposition product as hydrogen sulfide. Other effective fungicides are 2-heptadecylimidazoline, chromate complexes, and organic mercury compounds used in very low concentrations. Chem. & Eng'g. News 28, No. 17, 1376 (1950).

Wax Detergent

A water soluble wax, useful as a wetting agent and detergent is made by heating six mols of CH₂.CH₂.O with equimolecular mixtures of RN-HCH₂OCH₂CH₂N (CH₂CH₂OH)₂, where R is stearoyl and oleoyl, in the presence of sodium. Swiss Pat. 263,840 through *Chem. Abst.*

Fatty Acid Fractionation

Fractional distillation of fatty acids in the new plant at Little-borough, Lancashire, England, operated under license from Armour & Co., Chicago, may be operated to yield saturated acids with a purity higher than 90 per cent. Unsaturated acids may be fractionated into groups of different carbon length, however, the groups contain acids of varying degrees of unsaturation. Any oil or fat can be handled in the unit, and the components separated into a great variety of charge stocks.

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SOAP PLANT OBSERVER

By John W. McCutcheon

HE pattern of distribution of synthetic detergents seems obscure at times because of the recent introduction, extremely rapid sales growth and constantly increasing number of these products. People in the industry, because of their closeness to the picture, tend to lose track of the major marketing methods for concentrating on a small area of the total canvas.

The early sale of synthetic detergents at retail was handled mainly by the leading soap companies. This was logical in view of the fact that soap companies were interested in these products from the beginning, they were potential competitors to soap, and the soap firms were well established in their contacts with the retailers. In addition, there are the factors of the progressive spirit of the soap companies and their manufacturing and marketing knowledge, which would be of major importance in the successful manufacturing, correct pricing and merchandising of synthetic detergents.

We have also seen how industrial sales were developed chiefly through chemical companies not connected with the soap industry, but which were supplying raw materials to such industries as textiles, leather and paper.

The rapid post war development of synthetics, both industrial and retail led to an excited scramble for increased plant capacity. Some soap companies, anticipating heavy increased sales, went all out to protect their interests by either long term raw material contracts with non-soap chemical companies or took steps to expand their own manufacturing facilities. The skyrocketing of retail sales had the further effect of inducing many purely chemical concerns to follow

suit in expansion programs. So that, by 1948 even with increased sales of detergents there were plants in existence working at only a fraction of their rated capacity. The immediate result of this was a strong attempt to exploit the market for surface active products and to encourage compounders to go ahead with the production of a host of products using these agents. During the past twelve months there has been a growing tendency on the part of manufacturers to gather unto themselves the end products which once they encouraged a compounder or an intermediate company to supply. Where formerly they said,-"We will supply the raw material and you add the water," they now say to themselves "Let us add the water ourselves. We can make any product that anyone else can and, if necessary, sell it too."

The economic pinch of overproduction and falling prices is seen in this move. Just what effect this subtle change in policy will have, remains to be seen. At any rate, it would appear that the small intermediate compounder is going to be hurt first. Such a policy may have a certain uncomfortable aftermath. Small producers in the future are going to be more cautious about producing things in fields where there is a dearth of raw material suppliers. They are going to be independent in their research and seek independent patent protection-that is, if they live that long.

THE soap industry has always been interested in hard water, not because of its own need but because of the effect hard water may have on the industry's products. Recent work of G. Schwarzenback and co-workers [Helv. Chim. Acts 29, 811-818 (1946); 31, 1029 (1948); 32, 1314-

1325 (1949); and Chimia 2, 56-59 (1948)] has shown that calcium and magnesium hardness may be titrated directly with disodium ethylenediamine tetra acetate using Eriochrome black T as an inside indicator. According to C. C. Hach et al (Journal American Water Works Assoc. 42 #1, January 1950) the disodium salt first reacts with the Ca. hardness to form a soluble, slightly ionized calcium complex. Na₂(OOCCH₂)₂

NCH₂CH₂N (CH₂COO) ₂Ca. It then reacts with the magnesium present in the same way. When both magnesium and calcium of the hard water are used up, the tetra-acetate salt reacts with the magnesium in the dye, discharging its red color to blue. The method is claimed accurate to within one ppm of CaCO₃. To anyone using the time consuming Clark soap method, accurate to about 10-15 ppm., this method is most advantageous.

In practice, 50 ml. of the test water buffered to a pH of about 10 and containing three to four drops of a 0.5 per cent alcoholic solution of the dye, is titrated with a standardized solution of disodium ethylenediamine tetraacetic acid. This may be prepared by dissolving approximately 4.0 gr. of the above salt plus 0.1 gr. of MgCl₂6H₂O in 750 ml. of water, titrating with a standard CaCl₂ solution and diluting so that one ml. is equivalent of 1.0 mg. of CaCO₃ per ml.

Under such conditions the ml. required in the titration x 20 gives the ppm of hardness as CaCO3. The calcium hardness may be obtrined either by using a calcium indicator (Hagan method. Bulletin IRE50 Hall Laboratories, Inc. Hagan Bldg. Pittsburgh 30, Pa.) and titrating direct, or by adding buffered ammonium oxalate at a pH of 7.5-8.0, filtering off the precipitated calcium oxalate and determining the magnesium hardness in the usual way on the filtrate, [Versanate method;-Hack et al reference above; Hach Chemical Co. Box 597, Ames, Iowa; also Fisher-Eimer & Amend (The Laboratory; modified Schwarzenbach's method. 19 #4, Page 92; Fisher Scientific Co., Pittsburgh

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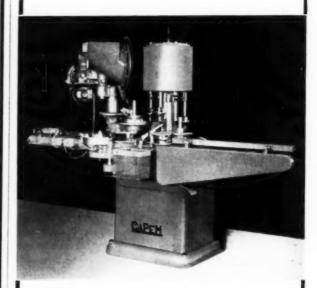
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or Eimer & Amend, New York]. Calcium hardness is obtained by difference.

The writer has employed this method with success in his laboratory. Easy to use, it is accurate and should find itself rapidly as a standard procedure. Only one caution; The redblue change is difficult for persons troubled with color blindness to read. Reagent and directions are all obtainable from the companies above named.

THE term "Surfactant," an abbreviation of Surface Active Agent was coined by Antara Products Division of General Aniline & Film Corp., New York. It is used to describe their group of products in this field. As the term is not copyrighted and offered to the industry by the originator, it should prove of lasting use and fill a long felt need for replacing the clumsy three word term. Henceforth, this column will use Surfactants for surface active agents just as it uses "Sope" for synthetic detergents.

ROM time to time we have mentioned that washing machines have not always been designed to take advantage of the known facts about detergency. Mechanical action does play an important part and it is now known that supersonic sound waves can literally bounce the dirt off fabrics. Although the practical application of this principle is probably still far from being solved, progress is being made. Recently, Herbert Jones, an inventor from "down under" (Australia) developed a device imparting a new type of mechanical agitation which is worth investigation. Called the "Electrosonic Clothes Washer," the bell shaped device at the bottom vibrates in an up and down motion at the rate of 120 cycles per second. This imparts a shock wave through the water. The upper part of the structure also vibrates in harmony so that a turbulent motion is set up in the water. It produces a unique type of mechanical action claimed to be less harmful on the fabric than the usual oscillating agitator. The unit will clean clothes quicker, is less expensive to

operate and has a low initial cost, according to its inventor.

The vibrator is placed in a sink, wash tub or other receptacle, water and soap added about halfway up the washer and about six pounds of clothes packed around it. The washing device draws about 10 amperes of power and is claimed effective in its action up to a distance of about two feet. Recommended washing time varies from five to twenty minutes. More factual information on the washing efficiency is required before a conclusion can be reached.

S ALES of synthetic detergents (SOPE) for the first quarter of 1950 as reported by 32 companies were 263,874,000 lbs. according to the Assoc. of Am. Soap & Glyc. Producers, Inc. This is 48 per cent higher than the average reported in 1949. Only in the third quarter of 1949 did the reported total exceed 200 million pounds.

N EW synthetic detergent products continue to be added to the ever growing list. A few noted over the past few months are as follows:

Actusol—Du Bois Co., Cincinnati.

Aerosol C 61—American Cyanamid Co., New York.

Aquet-Emil Greiner Co.

Dee-4—Onyx Oil & Chem. Co., Jersey City, N. J.

Duponol SN-E. I. Du Pont de Nemours & Co., Wilmington, Del.

Emcol RGL-Emulsol Corp., Chicago.

G-1702—Atlas Powder Co., Wilmington, Del. Integritol—Hart & Harrington Inc., Chicago. Miranol HM, M—Miranol Chemical Co., Irvington, N. J.

Myversol 18-85—Distillation Products Co., New York.

Nekal HS-General Dyestuff Corp., New York,

Nonionic Emulsifier 5069—Sharples Chemicals, Inc., Philadelphia.

Nopco 1248X-Nopco Chem. Co., Harrison, N. J.

N. J. Oronite Quaternary—Oronite Chemical Co.,

San Francisco.

Ovaclene—E. I. Du Pont de Nemours & Co.,

Wilmington, Del.
Repcol A-100—Refined Products Corp., Lynd-

hurst, N. J. Sipon L-20—U. S. Ind. Chemicals Co., New

York.
Sorolene—Onyx Oil & Chem. Co., Jersey

City, N. J. Sulfanole FAA, FAD-Warwick Chem. Div.,

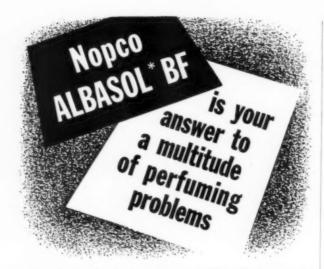
Long Island City, N. Y.
Tergitol Dispersant TMN-650, NPG-101—

Carbide & Carbon Chem. Corp., New York. Tranox—E. I. du Pont de Nemours & Co., Wilmington, Del.

Trem—Griffin Chemical Co., San Francisco. Valsol—American Cyanamid Co., New York. XL Synth. Detergent—Armour & Co., Chicago.

The "Electrosonic" clothes washer demon strated in New York early in May by its Australian inventor Herbert K. Jones of Melbourne. The device, which is placed in a tub or sink of water operates by electronic sound wave. According to the inven-tor, the low pitch sound waves water to vibrate, driving it through clothing fibres at the rate of 120 vibrations a Ordinary second. clothes can be cleaned in five minutes, Mr. Jones claims. The device is also said require less electricity than standard washing machines.





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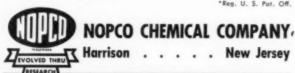
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PATENTS NEW.

The information below is furnished by patent law offices of

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The data listed below is only a brief review of recently issued pertinent patents obtained by various U.S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. They will be pleased to give you free preliminary patent advice.

No. 2,503,381, Detergent Composition, patented by Eric Eichwald, New York, N. Y., assignor to Arrow Laboratories, Inc., New York, N. Y., a corporation of New York. The patent describes a detergent composition consisting substantially of 38-46 per

cent by weight of trisodium phosphate, 30-47.5 per cent of soda ash, 1-3 per cent by weight of sodium sesquicar-bonate, 1-3 per cent by weight of sodium borate, 1-3 per cent by weight of sodium bicarbonate, 0.25-7.0 per cent by weight of an alkali salt of citric acid selected from the group consisting of sodium citrate and potassium citrate, 0.25-8.0 per cent by weight of potassium tartrate and 0.25-9 per cent by weight of sodium tartrate.

No. 2,503,843, Silver Tarnish Prevention, patented by Lucile D. Robertson and John W. Robertson, Anderson, S. C. The method of preventing silverware from tarnishing is covered, which comprises exposing the silverware in a confined space to vapors of the anhydrous crystalline reaction product of morpholine and carbon dioxide in an anhydrous medium.

No. 2,504,803, Insecticidal Compositions Containing Primary Polyhalophenylethylamine, patented by Charles C. Clark, Kenmore, N. Y., assignor to Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia. An insecticidal composition is described characterized by both knock-down and killing power and containing as an active insecticidal component, primary polyhalophenylethylamine in which the amino group and the polyhalophenyl group are attached to the ethyl group.

No. 2,503,841, Preservation or Timber, patented by Gordon James Pritchard, Liverpool, England, as-signor to Ward Bienkinsop & Company Limited, London, England, a company of Great Britain. A process for the preservation of timber is covered which comprises forming in contact with the timber a compound of a sulphonic acid of the group consisting of a phenol sulphonic acid, an alkyl phenol sulphonic acid, a carboxyl phenol sulphonic acid, benzene sulphonic acid, diphenyl mono- and disulphonic acids, naphthalene monoand di-sulphonic acids, sulphobenzoic acid, a hydroxynaphthalene sulphonic acid, an alky substituted naphthalene sulphonic acid, an alkyl substituted hydroxynaphthalene sulphonic acid and nuclear substituted halogen derivatives thereof, a salt forming component R₃HgA where R₃ is a radical selected from the group consisting of unsubstituted and substituted alkyl,



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aryl, aralkyl, and heterocyclic radicals, Hg is a mercury atom and A is an acid radical, and formaldehyde.

No. 2,499,396, Parasiticidal Synergistic Composition of Benezene Hexachloride and 2-4-Dinitro-Phenols, patented by George E. Lynn, Midland, Mich., asignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware. A parasiticidal composition is covered including as active toxicants benzene hexachloride and one of the group consisting of the hydrocarbon-substituted 2,4-dinitrophenols and their salts, and wherein the mixture of toxicants exerts a synergistic effect as regards parasiticidal toxicity.

No. 2,499,992, Insecticide Composition Comprising Di-(Monochlorophenoxy)-Methane and 1.1-Di-(Monochlorophenyl)-ethane, patented by Curtis E. Dieter and Oscar H. Hammer, South Haven, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware. The patent describes an insecticidal composition comprising as mutually activating toxic ingredients equal parts by weight of 1.1-di-(monochlorophenyl)-ethane and di-(4-chlorophenoxy)-methane.

No. 2,503,452, Manufacture of DDT, patented by Ralph S. Park,

Swarthmore, Pa., assignor to Allied Chemical & Dye Corporation, a corporation of New York. The process of purifying and stabilizing crude acidcontaining DDT produced by condensation of chloral with monochlorobenzene in the presence of sulfuric acid as condensing agent is described which comprises contacting the crude molten DDT containing sulfuric acid in quantity not above 3 per cent H2SO4, with a compound of the group consisting of calcium oxide, barium oxide, magnesium oxide and lead oxide, in substantially dry form, at a temperature in the range of 110° C.-180° C., said compound being employed in excess of that required to neutralize said acidity, filtering the resulting mass at a temperature within the range of 110-180° C. and recovering purified and stabilized DDT as filtrate.

No. 2,505,735, Purification of Crude Glycerine, patented by Harold S. Halbedel, Euclid, O., assignor to Harshaw Chemical Co., Cleveland, a corporation of Ohio. Process for purification of glycerine is covered comprising forming in a body of crude glycerine hydrogen and material of the class consisting of the sulfates of zinc and iron and mixtures thereof, the weight of the metal content of said material so formed being from 1/10 per cent to 1 per cent of the

weight of the glycerine, neutralizing the resulting mixture to a pH from 7.5 to 10.0 and then filtering off the solids and distilling the filtrate at pH values between 7.5 to 10.0 said crude glycerine initially containing at least 75 per cent glycerol.

No. 2,502,366, Insecticide Base Oil Toxicant, patented by Warren A. Beman, Albany, and Robert B. Killingsworth and Arthur C. Pabst, Douglaston, N. Y., assignors to Socony-Vacuum Oil Company, Incorporated, a corporation of New York. The patent covers a toxicant for mealy bugs consisting of a mixture of isoparaffinic and paraffinic hydrocarbons obtained by alkylation of Ca to Ca isoparaffins with C, and C, olefins in the presence of a catalyst selected from the group consisting of sulfuric acid and hydrofluoric acid; said mixture having an initial boiling point of about 364° to about 396° F., a 10 per cent point of about 371° to about 413° F., a 50 per cent point of about 383° to about 440° F., a 90 per cent point of about 432° to about 485° F., and a final boiling point of about 470° to about 510° F.; said mixture having a gravity of about 48.3 to about 53.2° A. P. I., a viscosity at 100° F. of about 1.9 to about 2.5 centistokes, a paraffinicity index of about 131.4 to about 151.9 and an unsulfonatable residue of at least 90 per cent; said mixture con-



sisting of about 45 to about 70 weight per cent C₁₂ isoparaffinic and paraffinic hydrocarbons and the balance substantially all lighter and heavier isoparaffins and paraffins, and being substantially devoid of aromatic and naphthenic hydrocarbons.

No. 2,501,467, Soap Manufacture, patented by Martin Hill Ittner, Jersey City, N. J., assignor to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware. The patent covers an apparatus for producing soap of a desired moisture content which comprises means adapted to contain a soap mass, means for discharging a stream of soap into said soap mass through a pipe whose outlet is surrounded by said soap mass, means for removing vapors from said first named means, means for supplying water to said first named means, means for withdrawing material from said soap mass, and means for vaporizing water from the material thus removed to produce a soap of desired moisture content.

The method of producing a solid soap from molten anhydrous soap which comprises bringing molten anhydrous soap into contact with water-containing liquid in a mixing chamber, substantially immediately subjecting the same to intense mechanically induced mixing, expelling the mixture from said chamber with the aid of steam generated in said chamber, and solidifying the expelled soap.

No. 2,501,487, Apparatus for Treating Soap, patented by Robert George Whitman, Valley Stream, N. Y., assignor to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware. An apparatus for cooling hot, spray-dried soap particles preparatory to packaging the same is described, comprising an enclosed chamber having an inlet for said hot, spray-dried soap particles and an outlet for cooled soap particles ready for packaging, a perforated bed sloping downwardly in a direction from said inlet to said outlet and dividing said chamber into an upper plenum compartment and a lower cooling air distributing compartment, a weir at the foot of said bed separating the bed from said outlet, said bed being adapted to receive said hot, spray-dried soap particles entered at said inlet, an air inlet to said air distributing compartment and an air outlet from said plenum compartment, and means for controlling the flow of air from said lower air distributing compartment to said perforated bed at contiguous sections along the length of said sloping bed, said means comprising horizontally disposed air ducts establishing communication between said air inlet and said perforated bed, and means for controlling the flow of air through said ducts.

No. 2,500,816, Combined Cleaning and Insecticide apparatus, patented by John A. Gird, Ilion, N. Y. The patent describes a combined cleaning and insecticide spraying device comprising air pressure means, a cleaning liquid tank connected to said pressure means, a powder tank connected to said pressure means, a mixing chamber connected to said pressure means, means connecting said liquid and powder tanks to said mixing chamber, said latter named means projecting into said chamber in a manner such as to unite the liquid and powder prior to discharge of the liquid and powder into said chamber, the connection between said pressure means and said chamber projecting into said chamber in a manner such that the air stream from said latter means will intersect the combined liquid and powder streams on an oblique angle, and a spray means connected to said chamber.

No. 2,500,961, Method of Production of DDT, patented by Walter H. C. Rueggeberg and Walter A. Cook, United States Army. In the reaction of the member of the group consisting of anhydrous chloral and chloral hydrate with two mols of chloral benzene to form 2,2-bis(p-chlorophenyl) 1,1,1-trichloroethane, the improvement which consists in carrying out the reaction in the presence of a stoichiometric amount of chlorosulfonic acid according to the patent.

No. 2,505,698, Insecticidal Compositions Containing Pyrethrin and Rotenone Extracts, patented by Herman Wachs, Brooklyn, and Kurt Kulka, New York, N. Y., assignors, by mesne assignments, to U. S. Industrial Chemicals, Inc., New York, N. Y., a corporation of Delaware. A concentrated insecticide composition is described comprising at least one insecticide selected from the class consisting of pyrethrin and rotenone in the form of an extract containing resinous material dissolved in a liquid solvent having the following formula:

R—O—CH₂—CH₂—O—T where R is an alkyl substituted and otherwise unsubstituted phenyl group having from 3 to 8 alkyl carbons and T is selected from the group which consists of CH₂—CH₂Cl, CH₂—CH₃—OH and CH=CH₂, said liquid solvent being miscible with petroleum solvents and dichlorodifluoromethane, whereby the concentrated composition including the resinous material of the insecticide may be put into solution in such solvent-diluents.

No. 2,505,699, Insecticidal Compositions Containing Pyrethrum Extracts and Piperonyl Cyclohexenones, patented by Herman Wachs, Brooklyn, and Kurt Kulka, New York, N. Y., assignors, by mesne assignments, to U. S. Industrial Chemicals, Inc., New York, N. Y., a corporation of Delaware. A concentrated insecticide composition is covered comprising pyrethrum extract containing resinous material, a piperonyl cyclohexenone synergist, and a liquid solvent for the pyrethrum extract, including the resinous materials thereof, and the synergist having the following formula:

R—O—CH₂—CH₂—O—T where R is an alkyl substituted and otherwise unsubstituted phenyl group having from 3 to 8 alkyl carbons and T is selected from the group which consist of

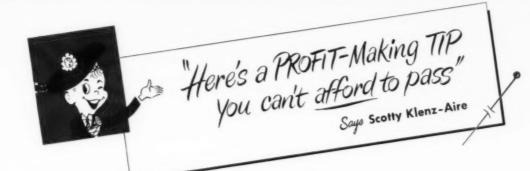
-CH₂-CH₂Cl, -CH₂-CH₂-OH and -CH=CH₂, said liquid solvent being miscible with petroleum solvents and dichlorodifluoromethane, in which resinous portions of the pyrethrum extract and the synergist are not more than slightly soluble, whereby the concentrated composition, including the resinous material of the extract, and the synergist readily may be put into solution in such solvent-diluents.

No. 2,505,012, Separation of Fatty Acids, patented by Hiram T. Spannuth, Chicago, Ill., assignor to Wilson & Co., Inc., a corporation of Delaware. A method of separating a mixture of higher fatty acids into fractions having different melting points is described comprising rapidly cooling a liquid mixture of the said higher fatty acids to a temperature which is below the melting point of the said mixture but is above the melting point of a component fraction of said mixture, contacting the cooled mixture with a solvent therefor, which is at a temperature so low that a higher melting fatty acid fraction is insoluble therein, and separating the undissolved fatty acid fraction from the dissolved fatty acid fraction.

No. 2,501,191, N.N'-Polythioamines as Pesticides, patented by William D. Stewart and John H. Standen, Yonkers, N. Y., assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York. A pesticidal composition is covered, comprising as the essential active ingredient 10 parts per million to 0.25 per cent by weight of a compound selected from the group consisting of N,N'-dithiodiethylamine, N.N'-trithiodiethylamine, N,N'-dithiodibutylamine, N,N'-trithiodibutylamine, N,N' - dithiodimethylamine, N,N'-dithiodipropylamine, N,N'dithiodiisopropylamine, N,N'-dithiodiisoamylamine, N,N'-dithiocyclohexylamine, N,N'-trithiomorpholine, N,N'tetrathiomorpholine, N,N'-dithiopiperidine, N,N'-dithiobenzylamine, and N,N'-dithioaniline, said active ingredient being homogeneously dispersed in a nonsolvent fluent carrier.

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CHICAGO . DALLAS . MEMPHIS . PITTSBURGH . LOS ANGELES



Go the scientific may...go MGK

AEROSOL INSECTICIDE CONCENTRATES

SPRAY INSECTICIDE CONCENTRATES

DUST INSECTICIDE CONCENTRATES

Purest toxicants and synergists

In tested ready-to-use formulations

In partially processed formulations



You may want complete formulas . . . ready to put right into your aerosol bombs or your retail packages. You may want combinations of insecticides and synergists that leave you only the minimum of processing to do. You may want to do most of the processing yourself and to you we offer the purest toxicants and synergists in their primary forms. MGK has the best of whatever you want.

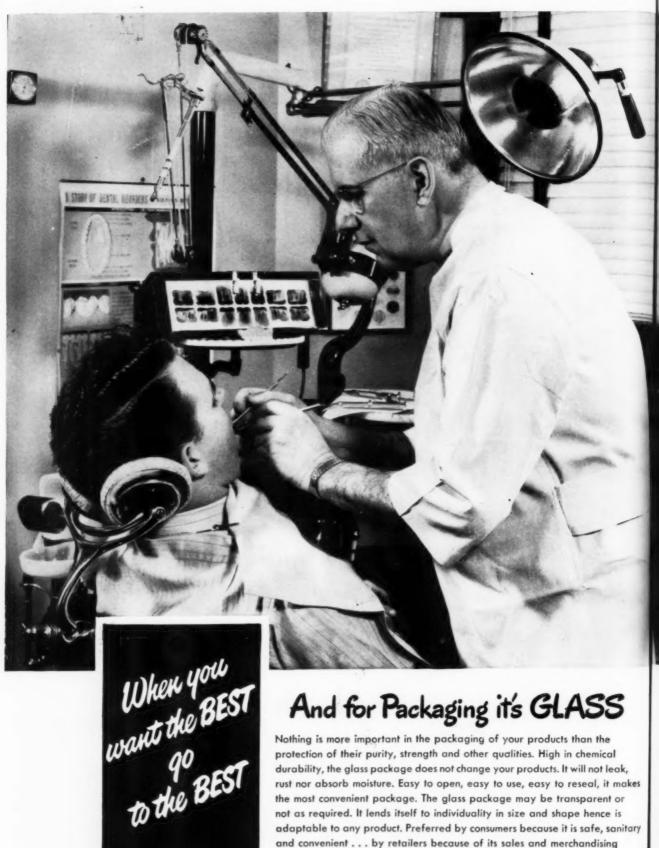
The emblem "MGK" is satisfying assurance of high efficiency and scientific production in insecticides and insecticide ingredients. Let this single experienced source help you make better products for less money. For complete information about MGK services write Dept. S, 1715 Southeast Fifth Street, Minneapolis, Minnesota.

Good Insecticides Protect America's Health and Harvest

McLAUGHLIN

GORMLEY

KING COMPANY



And for Packaging it's GLASS

Nothing is more important in the packaging of your products than the protection of their purity, strength and other qualities. High in chemical durability, the glass package does not change your products. It will not leak, rust nor absorb moisture. Easy to open, easy to use, easy to reseal, it makes the most convenient package. The glass package may be transparent or not as required. It lends itself to individuality in size and shape hence is adaptable to any product. Preferred by consumers because it is safe, sanitary and convenient . . . by retailers because of its sales and merchandising advantages. Anchor Hocking Glass Corporation, Lancaster, Ohio.



Anchorglass

ROUND JARS

These light-weight wide-mouth amber jars are designed especially for convenience, economy, safety and display in packaging and merchandising semi-solids such as paste wax. Anchorglass Round Jars are the result of carefully controlled raw materials, consistency in manufacture, uniform glass distribution, accurate annealing, quality control through laboratory tests and regular inspections. They're uniform in height, diameter and finish. But regardless of what you package there are Anchorglass containers in styles, capacities and colors that will meet your requirements.

ANCHOR

AMERSEAL* CAPS

For dependable airtight, leakproof sealing of oily, sticky, effervescent, volatile or gummy products use Anchor Amerseal Caps. Amerseals speed application—no matching or adjusting to threads is necessary—a quarter-turn seals. Your customers like this cap because a quarter-turn, a simple twist of the wrist, removes it. Knife-like action of the cap lugs easily breaks the contact. A reverse quarter-turn reseals time after time. Let us tell you more about the advantages and economies of Anchor Amerseal Caps and Anchorglass containers.

*Trade-Mar

For the BEST in Glass Packaging it's

ANCHOR HOCKING



"THE MOST FAMOUS NAME IN GLASS!"

June, 1950

nitary

Say you saw it in SOAP!

103



Speckling and burning of foliage is really a tough problem for technologists working to control insect pests with oil solutions of insecticides. To begin with, what causes this trouble? Is it the toxicant? The solvent? Or something else?

Emulsion research reveals that quick-breaking emulsions nearly always cause "burning." When oil separation is controlled by proper emulsification, plant injury is rare. Many a perfectly good solvent is rejected from formulas when all it actually needs is to be combined with the right emulsifier.

You can depend on Atlas to bring you the latest developments in emulsion technology. And you can depend on Atlas technicians for help in solving *your* emulsion problems. As a starter, write today for the latest Atlas pamphlet featuring Atlox 1045-A and Atlas G-1256 emulsifiers in twenty-six different formulas for agricultural, pesticide, and animal-dip applications.

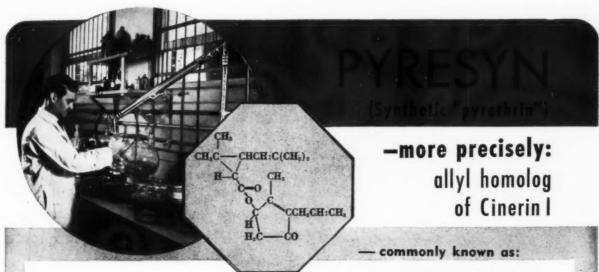
Atlox: Reg. U. S. Pat. Off.

ATLAS

INDUSTRIAL CHEMICALS DEPARTMENT



ATLAS POWDER COMPANY, Wilmington, Del. • Offices in principal cities • Cable Address—Atpowco ATLAS POWDER COMPANY, CANADA, LTD., Brantford, Canada



ALLETHRIN

The current world-wide shortage or scarcity of natural pyrethrum flowers and extract is arousing an immediate keen interest in Pyresyn.

Pyresyn is our trade name for this new chemical basic insecticide. It can be used to make a fly and mosquito spray at lower cost than from natural pyrethrum. Moreover, it is more stable and contains no inert waxes or resins. Pyresyn is practically odorless and lends itself readily to a light aromatic bouquet.

Pyresyn with n-Propyl Isome gives the double advantage of the lower cost allethrin and the even less expensive synergist. We offer the combination which gives an AA spray at 1:19 dilution at a price you will find most interesting.

In addition to Pyresyn 100% and the above combination, we have various concentrations of allethrin, including 2% which is comparable to the standard 20:1 extract.



OTHS make money for You!

NEW FINGER-TIP CONTROL VALVE

... all day...every day...the year 'round

NEW

Kills moths, moth larvae, carpet beetles and certain other bugs! MOTH-PROOFS a Year...for only a few cents

THERE IS NO "MOTH SEASON." Spring, summer, winter and fall the moth larvae grow fat on fabrics. This destruction of materials is continuous in all parts of the country... There is always a need for protection from these costly destroyers. MOTH-O-BLITZ contains Chlordane, Lindane, Tetralin and DDT

Packed 12 to a carton. One bomb moth proofs many garments for only a few pennies RETAILS

deadly to fabric eating insects. The new, "self-spraying" safety valve opens and closes at the touch of the finger and puts an end to the hard work of moth proofing. Noweasy-effective and economical protection for clothing, rugs, drapes, furniture, blankets and furs. No objectionable odor or crystals-Will not harm delicate fabrics.

STOCK UP NOW ... moths work all day, every day and can mean profits for you!

THE AEROSOL SPRAY HOUSEWIVES BUY...

It KILLS FLIES and other insects QUICKER!



H-PRESSU Aerosol INSECT-O-B

> stay suspended longer and are carried by the air to every crevice and corner of the home.

Warm weather means FLIES — BUGS and INSECTS-housewife buys an insecticide for only one reason-to see these insects drop - and drop fast.

*Complete reports on these tests are available upon request.

Packed 12 to a carton. . Retails \$1.79

THE FLY SEASON IS ON! Order from your jobber now or write to

TETCO CO.

458 So. Spring Street, Los Angeles, California or Hobart, Indiana

SANTOCHLOR! STOPS: MILDEW



WITH SANTOCHLOR... not a trace of mildew on any material.

WITHOUT SANTOCHLOR mildew attacked leather, paper and textiles.

Monsanto Santochlor (para-dichlorobenzene) stops mildew. This fact has been proved in a tropicalization chamber test, extending over three and one-half months, in Monsanto Laboratories.

Identical pieces of leather, paper and textiles . . . all easy victims of mildew . . . were placed in side-by-side jars during the Monsanto test. Temperature, moisture and all other factors relating to the two jars were alike . . . except one. This one factor was a small quantity of Monsanto Santochlor suspended from the top of one jar.

Results of the test show that materials in the jar without Santochlor were heavily attacked by mildew. Those protected by Santochlor vapors did not show a single trace of mildew.

The same Santochlor that is so widely used as a mothicide was employed in this test. The results show that you can find increased volume and profit by selling Monsanto Santochlor under your brand as a mildew preventive as well as a mothicide.

For your copy of Technical Bulletin "Santochlor for Mildew Control" mail the coupon or contact the nearest Monsanto Sales Office. Monsanto can make immediate shipment of Santochlor in five sizes ranging from powder to pellets. MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1767-E South Second Street, St. Louis 4, Missouri.

Santochlor: Reg. U. S. Pat. Off.

DISTRICT SALES
OFFICES:
Birmingham, Boston,
Charlotte, Chicago,
Cincinnati, Cleveland,
Detroit, Houston,
Los Angeles,
New York,
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Portland, Ore.,
San Francisco, Senttle.
In Canada, Monsanto
(Canada) Ltd.,
Montreal.



MONSANTO CHEMICAL COMPANY Organic Chemicals Division 1767-E South Second Street, St. Louis 4, Missouri

Please send a free copy of Monsanto Technical Bulletin "Santochlor for Mildew Control."

SERVING INDUSTRY...WHICH SERVES MANKIND

There's a FASTfor your



Aerosols are selling faster today than ever before. Surveys prove it. The many items available in this rapidly expanding market now include such varied products as household and personal deodorants, auto waxes, floor polishes, mothproofers, sunburn treatments, perfumes, paints and insecticides.

Buyers welcome these new products, and many new aerosols are being developed . . . aerosols that will wash windows, prevent perspiration, shampoo and wave hair and perform dozens of other jobs at home and in industry.

THERE'S PLENTY OF ROOM FOR YOUR PRODUCT

Start planning now to secure the most profitable position for your product. Chances are there's a ready-made market awaiting its introduction. More than likely you can market aerosols without making a single change in your distribution channels or existing outlets. Kinetic's recent surveys show that most aerosols are now bought

WE JIE

"REON" is Kinetic's registered trademark for its fluorinated hydrocarbon propellents. "FREON"

T se p

fle

ta

GROMMG market aerosol product!

in drug stores, department stores, hardware stores, food stores, gasoline stations, seed and feed stores, variety and dime stores.*

CUSTOMERS DEMAND SAFETY

n h

You'll find it easy to have a small quantity of your product packaged for an effective and economical sales test. But whether you plan a modest "trial balloon" selling campaign or propose to go ahead with full production, it's vitally important to choose safe, dependable propellents.

In the Kinetic survey, customers reporting reasons for buying aerosols listed effectiveness as a first consideration . . . and safety as an important second. Both factors are directly related to the quality of propellents used.

YOU KNOW IT'S SAFE WHEN YOU USE "FREON"

To assure safe, dependable performance of aerosol-packaged products — performance that prompts resale—a large majority of manufacturers and packagers confidently select "Freon" propellents.

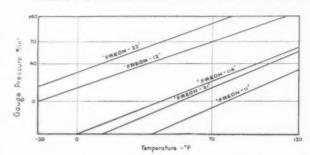
They know that "Freon" propellents are safe. These propellents are nontoxic, nonflammable and nonexplosive . . . harmless to foods, furs, flesh, fabrics and finishes. They have no color or taste, and are practically odorless.

YOU CAN'T USE A MORE DEPENDABLE

PROPELLENT! Keep this important safety story in mind when you choose propellents for your aerosol products. Then be sure to specify "Freon" propellents . . . unsurpassed for safety and satisfaction!

"FREON" PROPELLENTS MEET ALL PRESSURE REQUIREMENTS. Chart below indicates pressures you can obtain:

PRESSURE - TEMPERATURE RELATIONSHIPS OF "FREON" PROPELLENTS



NOTE: A larger, more detailed chart available on request.

*FREE! Your own digest copy of Kinetic's important survey of the aerosol market—the only report of its kind anywhere. Write: Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.



SAFE PROPELLENTS



When you are presented with an ISCO business card, you can be certain that the representative means business—business for you, that is.

He will be chock full of practical knowledge about ISCO chemicals, gums, and waxes. He'll be a young "old-timer" with ten to fifteen years of selling experience in the chemical field. And what's more important, he'll be frank. friendly and fair... the type you'll like to do business with because every ISCO representative has been trained in ISCO operation.

Why not try this unique type of service on your next order? ISCOoperation is the living, growing symbol of 134 years of ISCO service to the chemical industry.

INNIS, SPEIDEN & CO. 117 LIBERTY STREET NEW YORK 6, N. Y. E. S. BROWNING CO., INC. SUBSIDIARY: SAN FRANCISCO - LOS ANGELES

SOME ISCO PRODUCTS

Caustic Potash

Adsorbol (Bleaching Clay)

Carnauba Wax

Candelilla Wax

Paradichlorobenzene

Naphthalene



IOSTON . CINCINNATI . GLOVERSVILLE . CHICAGO . CLEVELAND . PHILADELPHIA

FOR AEROSOL FILLING

LOOK TO

Continental Filling

Continental Filling is the Largest Aerosol Contract Filler in the World

Continental can handle practically every low or moderate pressure aerosal container manufactured

CENTRALLY LOCATED
IMPERATIVE FOR NATIONAL
DISTRIBUTING HOUSES

(Drop Shipping Services Supplied)

Research Department devoted exclusively to Aerosols—Insures Controlled Quality



Remember

- 1. Experience Counts.
- 2. We operate strictly as a filler and do not market products in competition with our customers.

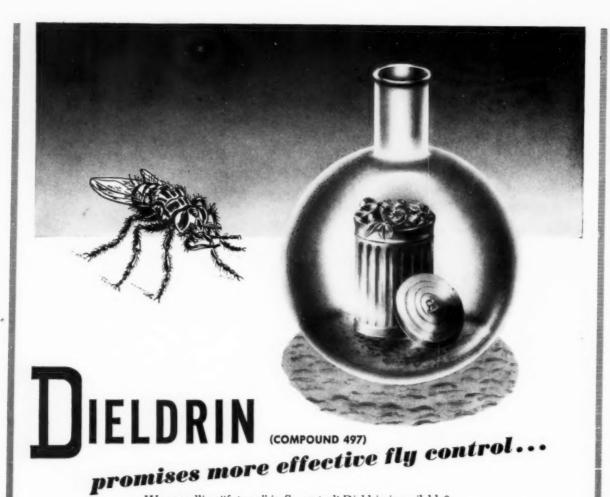
SEND INQUIRIES TO: DEPT. MP-I

Continental
FILLING CORPORATION

123 N. Hazel Street

Phone 742

Danville, Illinois



We are selling "futures" in fly control! Dieldrin is available*
at this time only under experimental label, but that should not prevent you from
planning for the future. In state after state research workers report the
astonishing residual effectiveness of low dosages of Dieldrin for environmental
control of adult flies and their larvae. A few typical reports follow.

A user from Texas states, "Best results were obtained with 497 (Dieldrin). A 0.5% concentration of 497 gave almost complete larval control and in addition killed large numbers of adult flies that alighted on treated media."

On a California farm where fly infestation was the worst encountered, "a 0.25% Dieldrin spray kept the premises almost fly-free 6 weeks following application despite thousands of fly maggots brought in each day with garbage." The report concludes, "Results of spraying are unbelievable."

From Idaho, "Only 0.125% Dieldrin gave highest mortality of adult flies."

Yes, it will pay you to keep your eye on Dieldrin if you are interested in outdoor fly control in town and country clean-up campaigns.

Write us for full information.



EASTERN SALES OFFICES: 11 WEST 42ND STREET, NEW YORK 18, N. Y. WEST COAST SALES OFFICE: 25 BEALE ST. SAN FRANCISCO 5, CALIF.

*Limited quantities of Dieldrin are obtainable by professional applicators for experimental field work.



dreyer odors

for insect sprey



asking scens



DREYER HAS WHAT YOU NEED! Expertly compounded by

our specialists to combat harsh odors . . . Adding their

own pleasant scent to the end product. For greater efficiency,

MORE ECONOMY, contact the Dreyer chemist.

OXENES . PETROMASKS . D-THANE S-ENCES

P. R. Dreyer Co., Inc. 119 West 19th Street, New York, N.Y. Gentlemen: Please send us Catalog "B". ■ We are interested in

Street

Company.



"They won't take yes for an answer!" Continental's scientific and technical staff won't stop making good things better. Not long ago we announced the much-wanted low-pressure aerosol can with the "Finger-tip" valve . . . which is still just about the finest way to pack insecticides and household deodorants.

Now our technical people have come up with another low-pressure aerosol can which also can be used for insecticides, larvicides, household deodorants and other products that can be sprayed. This new container has a domed top that can be fitted with a wide variety of valves for dozens of products that will profit from the extra sales-appeal of a modern pressure dispenser.

Fascinating as these jet-propelled containers are, they are just two of hundreds of advances in packaging pioneered by Continental. Our staff of 220 research people is constantly on the job seeking to develop new containers and to improve existing ones.

If a better package will help your sales, why not check with Continental today? We have both the research facilities and manufacturing capacity to give you the kind of service you want.

BOTH CONTINENTAL PRESSURE CONTAINERS CAN BE LITHOGRAPHED

The new domed-top, low-pressure Continental container (above, left) offers two sales-important features. First, it can be fitted with a valve that is tailor-made for your product. Second, and this is an exclusive, Continental pressure containers can be attractively lithographed. Your package design always remains cleanlooking.

The Continental "Finger-tip" valve, low-pressure can (right) is the only aerosol container sold complete with valve. It is currently the most popular package of its type for insecticides, larvicides, household deodorants and similar products.

You can't beat Continental as a dependable source of supply!

CONTINENTAL © CAN COMPANY

Eastern Division: 122 East 42nd St., New York 17 • Central Division: 135 So. La Salle St., Chicago 3 • Pacific Division: Russ Bldg., San Francisco 4



FREE TECHNICAL ASSISTANCE — The MM&R Technical Service Dept. will be happy to recommend — or develop — a perfume oil that will do the job you want within the requirements of your budget! Just send a sample of your unperfumed product and an indication of your price limitations — an economical, sales-stimulating scent will be added for your approval — without obligation.

Builders of
PRODUCT PREFERENCE
through QUALITY
ESSENTIAL OILS
PERFUMING MATERIALS
and exclusive
MM&R DEODOR-SCENTS
Since 1895



LOS ANGELES: BRAUN CORP. . SEATTLE, PORTLAND, SPOKANE: VAN WATERS AND ROGERS, INC. . SAN FRANCISCO: BRAUN-KNECHT-HEIMANN CO.

BREUER Mistmaster

INSECTICIDE SPRAYERS

deliver an abundance of oil-base insecticides—thoroughly atomized—in the shortest possible time

Only *Mistmaster* Sprayers give Triple Atomization

The insecticide enters the compression chamber, is combined with the proper amount of air—compressed and warmed slightly above room temperature—and the mixture is then further atomized as it is forced under pressure through a precision machined nozzle.

Mistmaster FEATURES

Adjustable Atomizing. Permits various particle sizes for either space or residual spraying.

Adjustable Nozzle. May be placed in any position through a 180-degree arc.

Immediate Operation. Sprays instantly. Fast, efficient. Utilizes every drop of insecticide.

Automatic Time Switch. (Model 54). May be set for operation from 1 to 24 minutes. Automatically shuts off spray at end of desired period.

Light Weight—Easily Handled. 1/8 H. P. motor operates from any convenient electric outlet. Constructed of precision machined aluminum. Convenient pistol grip with toggle switch or time clock. 1 quart non-corroding container. 10 feet of heavy duty rubber covered cable.

Guaranteed for one year. Underwriters' Approved.

Your insecticides are only as effective as the machine that sprays them.

Mistmaster Sprayers protect your product.

Write for information



Mistmaster Model 53



Mistmaster Model 54

BREUER ELECTRIC MFG. CO.

1800 Winona Avenue . Chicago 40, Illinois

Manufacturers of Precision Insecticide Sprayers Since 1928

Leaders of the industry are members of the ...

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, INC.



EADING manufacturers in the fields of floor waxes and other floor finishes, disinfectants, sanitizers, soap and detergent specialties, household insecticides and moth products, aerosol specialties of all types, and allied chemical specialties are members of CSMA.

Large and small, old and new, these leading firms have comprised the membership of CSMA (formerly National Assn. of Insecticide & Disinfectant Manufacturers) for over 35 years.

The newly expanded activities of CSMA may have interesting advantages for your company. Dues are moderate; services and contacts valuable. If we can give you further information about membership, we shall be glad to do so.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, INC.

110 East 42nd Street

New York 17, N. Y.

L. J. Oppenheimer, President

H. W. Hamilton, Secretary

In this modern plant at Cincinnati, Ohio

GENUINE ROCCALLA

is made under strict laboratory controls



for your compounds and formulations
Use only the original quaternary ammonium germicide

ROLLING

SARITIZING AGENT

Now Offered to Manufacturers in 50% Concentrations

In proper dilutions

ROCCAL

IS:

POTENT

STABLE

NON-POISONOUS

TASTELESS

ODORLESS

NON-CORROSIVE

NON-IRRITATING

TO SKIN

1450 BROADWAY, NEW YORK 18, N. Y., DEPT. M-60

Subsidiary of Sterling Drug, Inc.

Distributor of the products formerly sold by Special Markets-Industrial Division of Winthrop-Stearns, Inc., and Vanillin Division of General Drug Company

Sample and

COME UP COME US AND SEE US

Get the Last Word on the

latest in Spraying and Dusting Equipment

We'll be at the DRAKE Hotel all during the CSMA meeting



LOWELL

WAREHOUSE



pick your pests

FOOD
PROCESSING PLANT

*

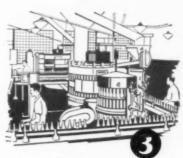
Pyrenone —

base insecticides

control them all —

yet they're non-toxic

to humans!



BOTTLING PLANT

Insecticides based on Pyrenones are $doubly\ economical\ for\ pest\ control\ around\ foodstuffs$ —

- They are effective at economical concentrations against an extremely wide range of insects.
- Their combination of safety and convenience makes shorter work, faster work of insect control.

Pyrenone-based area-type sprays provide fast, positive knockdown and kill.. time-saving convenience... freedom from toxicity, skin irritants and objectionable odors. Pyrenone-based residual-type sprays combine safety, effectiveness, and long-lasting protection to a greater degree than any other insecticide we've tested.

*Reg. U.S. Pat. Off.

Chocolate moths

Cheese skippers and mites

Cadelles
House flies
Fruit flies
Roaches
Ants
Silverfish
Crickets

Spiders
Scorpions

Hornets

Gnats

Mosquitoes

Wasps

Box elder bugs

Clover mites

Confused flour beetles

Rust red beetles

Granary weevils

Rice weevils

Saw-toothed grain beetles

Spider beetles

Angoumois grain beetles

Mediterranean flour moths

Meal worms

Cigarette beetles

Drugstore beetles

Grain mites



If you'll tell us briefly what your food insect control problem is, we'll be glad to give you further information about Pyrenone-type insecticides.

STRIAL CHEMICALS, INC.

60 East 42nd Street, New York 17, N. Y.

Branches in all principal cities

In Canada: Standard Chemical Co., Ltd., 99 Vanderhoof Avenue, Leaside, Toronto 17, Ontario

Do your labels meet the law?

In the ever-changing picture of new laws, new regulations, new label requirements for

INSECTICIDES — DISINFECTANTS
RODENTICIDES — WEED KILLERS

. . . you may be violating some federal or state law and not even know it until your product is seized and you are haled into court.

All labels should be checked periodically to make certain that law changes or new regulations have not outlawed them. But how? By use of the complete Compilation of Laws published by CSMA for its members. A limited number of this quick-reference guide available to non-members.

The Compilation of Laws contains:

- Federal and State Laws dealing with Insecticides, Disinfectants and Caustic Poisons.
- 2. Regulations issued covering enforcement and interpretation of the laws.
- 3. Notations for reference.
- 4. A list of all the enforcement offices.
- 5. A chart showing basic requirements of each state in composite form for quick reference.

Additions and corrections issued annually, keeping your copy always up to date. No other reference book like this has ever been available.

Do you want further information?

Chemical Specialties Manufacturers
Association, Inc.

110 East 42d St.

New York 17, N. Y.



One of the World's Largest Can Manufacturers





Plants at Philadelphia, Chicago, Orlando. Branch Offices: New York, Baltimore, Pittsburgh, St. Louis . Division of the Crown Cork & Seal Company

Deluxe *S-D SANITIZING CLEANER

*Sanitizing - Deodorizing

The all-around, neutral, self-rinsing cleaner... for all general cleaning, sanitizing and deodorizing in the home, office or plant. Non-injurious to the skin, effective and safe to use.

Deluxe *S-D Cleaner will be popular with the trade because it aids in preventing the spread of disease germs, is easy to apply, odorless, attractive in color (opalescent), economical and safe. Absorbs obnoxious odors without leaving a masking odor.

At last here's a cleaner that gains good results on ALL types of floors, INCLUDING RUBBER AND ASPHALT TILE!

Deluxe *S-D Cleaner can be used anywhere and any time because it is effective even in cold or hard water. This feature is a great plus in sales appeal. For more details about Deluxe *S-D Cleaner write us immediately.

SEND FOR LATEST PRICE LIST CONTAIN-ING A WIDELY DIVERSIFIED LINE OF BAIRD & McGUIRE CERTIFIED PRODUCTS.





Baird & McGuire, Inc. HOLBROOK, MASSACHUSETTS

CREATORS AND COMPOUNDERS OF THE BEST IN CLEANERS AND DISINFECTANTS FOR OVER 41 YEARS

SANITARY PRODUCTS SANITARY PROPUCTS SANITARY PRODUCTS

RODUCT liability claims are a continuing occupational hazard of the chemical specialty business,—and an increasingly serious one! Particularly since the introduction of the new chlorinated insecticides, damage claims here have mounted until today manufacturers face suits running into the millions of dollars. How many of these claims are valid, and how many of the "phony" variety, may never be determined. Our own feeling is that a vast majority of these cases are inspired solely by a desire to collect damages.

Insurance is seen by some firms as the logical defense against such damage cases, but experience indicates that the answer is not to be found in this direction. Insurance companies are too prone to terminate nuisance cases by allowing themselves to be shaken down for a small settlement. True, this gets them and their client off the immediate spot, but it may inspire dozens of other claimants to file similar suits subsequently.

As we see it, the problem is one which the industry must face and attempt to solve itself. First, it must see that dealers, distributors and users of all sorts of chemical specialties are educated all along the line. Labeling must do a complete job of warning against hazards, where and if they exist. And, having done as good an educational job as possible, the industry still has a second responsibility as we see it,-to see that every claim which appears "phony" is fought to the limit. Other industries have faced this problem before, particularly the canning and bottling industries. They found a united industry front to be the only effective answer to fake damage cases. When cases were recognized to be trumped up, they were defended by industry committees, with each firm recognizing that what was his competitor's problem today might well be his own tomorrow.

Manufacturers of chemical specialties may well

have to come to this same decision,—and fight this battle out together, if they are to solve what is currently one of the most serious problems the industry faces. It is a problem of sufficient current importance, incidentally, that a special committee of the Chemical Specialties Manufacturers Association might well be named to look into the matter right now.

and a security of the label in "letters not smaller than the largest type used on the label except the name of the product." Manufacturers selling insecticides, wax polishes, cleaning fluids, and the like whose products come under the regulation are being notified that unless this label change is made within one year, their products will be removed from sale in New York City.

Conceivably, once in full force in any large city, the idea could spread elsewhere. That it could cause endless annoyance to manufacturers without any material public benefit is quite apparent. The label requirement of "conspicuous display likely to be read and understood" of various state and federal laws, including economic poison and insecticide acts, is eminently more convenient and sensible.

Wide opposition has arisen to the New York City regulation which is being spearheaded by the legislative committee of the Chemical Specialties Manufacturers Association. It is suggested that all manufacturers receiving notices immediately file a vigorous protest with the Fire Department in New York and not let the matter go by default. Combined efforts of CSMA and individual protests may bring a revision less costly and drastic.

C. L. WEIRICH Vice-President

H. W. HAMILTON Secretary

PETER C. REILLY Treasurer



Other officers and directors of the Chemical Specialties Manufacturers' Association, whose photographs do not appear on this page, include: Leonard J. Oppenheimer of West Disinfecting Co., Long Island City, New York, president (picture on front cover); Howard F. Williams, J. R. Watkins Co., Winona, Minn.; R. T. Yates, Hercules Powder Co., Wilmington; J. L. Brenn, Huntington Laboratories, Huntington, Ind.; Gordon M. Baird, Baird & Mc-Guire, Inc., Holbrook, Mass., previous president; and five division chairmen: H. E. Peterson, Dr. E. G. Klarmann, T. Carter Parkinson, H. W. Zussman, and Bayard S. Johnson.

C. S. M. A. Meets

NE of the most comprehensive programs in the history of the organization has been arranged for the 36th mid-year meeting of the Chemical Specialties Manufacturers Association, being held at the Drake Hotel, Chicago, Monday and Tuesday, June 12 and 13. A total of nearly 70 papers were to be given during the two-day meeting. New product developments, advances in equipment and methods of application, late word on legislative and economic developments affecting the industry and its products and association business, including various committee reports are expected to be covered at the meeting.

Conforming to the pattern of recent conventions, activity began June 11, with the meeting of the board of governors and administrative officers and chairman of the five divisions and committees of the association. A general session was held the morning of June 12 and, following a group luncheon, meetings of the association's five divisions were to begin. These sessions were to continue the following morning, June 13, with a break for a group luncheon and a

short general session. Divisional meetings were to wind up on Tuesday afternoon with committee reports and completion of any unfinished business.

The reception, annual banquet and entertainment, the concluding features of the meeting, were to be held Tuesday evening.

The last business of the gathering was to be a breakfast meeting of the Toxicity Committee with Dr. C. W. Kearns of the University of Illinois on June 14.

Oppenheimer Opens Meeting

Leonard J. Oppenheimer of West Disinfecting Co., Long Island City, president of the C.S.M.A., officially opened the meeting Monday morning, June 12, with his president's address. In his report, Mr. Oppenheimer pointed out that much has been accomplished in the half-year since the association voted officially to broaden the scope of its activities and to change its name. Many new activities were initiated and the program of the mid-year meeting offers first-hand proof of accomplishment following the decision to serve all CSMA members

MELVIN FULD Program Chairman



in Chicago, June 12 and 13

in many more ways, he said. Twelve firms have joined the association since the first of the year. Reports of increased interest in the Chemical Specialties Manufacturers Association were attributed by Mr. Oppenheimer to the fact that the organization recognizes every phase of the chemical specialties industry. He cited the activities of various individuals and groups within the Association to show that the members, not merely the officers and the board of governors, run it.

An invitation to member firms to designate individuals to be represented at a symposium on traffic problems and rates, to be presented at the December meeting, was extended by Mr. Oppenheimer. A Traffic Committee is to be set up within the organization following the report on a bulletin on the subject sent out recently, he revealed.

Secretary Hamilton's Report

The secretary's report, presented by H. W. Hamilton of H. W. Hamilton Co., New York, laid particular emphasis on the problem of increased costs of doing business as a result of the passage of more state legislation requiring fees for product registration, etc. In addition to the legal restrictions upon it, the pesticide industry pays over \$300,000 annually under state laws covering its products. Association services and activities including the issuance of bulletins and the Revision of Compilation of Laws, the development of uniform test methods and similar services were mentioned by Mr. Hamilton. He urged complete cooperation of individuals and firms in the work of the association as necessary for the success of the organization.

The appointment of committees preceded the report of P. C. Reilly, Jr., of Reilly Tar & Chemical Corp., Tuckahoe, N. Y., CSMA treasurer.

The effect of state and cooperative buying on commercial business was discussed next by C. L. Rothermel, National School Service Institute, Chicago.

Dr. C. W. Kearns of the University of Illinois, the next speaker, discussed the "Report of the CSMA Committee on Toxicity." He was followed by Bernard E. Conley, secretary, committee on pesticides, Council of Pharmacy and Chemistry, American Medical Association, Chicago, who reported

on the "American Medical Association Program on Pesticides."

The concluding feature of the Monday morning, June 12 session was a talk by P. B. Morehouse, director of the Bureau of Stipulations, Federal Trade Commission, Washington, D. C., on the subject of "Do's and Don'ts in Advertising and Selling."

Meeting Chairman

General program chairman for the meeting is Melvin Fuld of Fuld Brothers, Inc., Baltimore; John A. Rodda, U. S. Industrial Chemicals, Inc., New York, is general vice-chairman, and the following are acting as program chairman for their respective divisions: J. A. Green of Standard Oil Co. of Indiana, Chicago, Insecticide; C. L. Weirich, C. B. Dolge Co., Westport, Conn., Waxes and Floor Finishes; H. R. Shepherd, Connecticut Chemical Research and Development Co., Bridgeport, Aerosol; H. W. Zussman, Alrose Chemical Co., Providence, R. I., Soaps, Detergents and Sanitary Chemicals; H. D. Lederer, R. M. Hollingshead Corp., Camden, N. J., Disinfectant and Sanitizers.

Ira P. MacNair of McNair-Dorland Co., New York, is in charge of arrangements and the entertainment committee consists of James E. Ferris of Niagara Alkali Co., New York, chairman; C. L. Lichtenberg, Chicago Sanitary Products Co., and Herbert Wendel, Hercules Powder Co., New York.

The 27th annual meeting of the Chemical Specialties Manufacturers Association will be held Monday and Tuesday, December 4 and 5, at the Hotel New Yorker, New York City. No places or dates for the June and December, 1951 meetings have been announced as yet. These matters were to be discussed and decided upon at the current meeting.

Chemical Specialties Manufacturers' Association meeting to hear record number of papers featuring new developments in insecticides, floor finishes; detergents, aerosols and disinfectants. Program of A.M.A. on pesticides covered by its chairman.

Program for 37th Mid-year Meeting Chemical Specialties Manufacturers' Assn. Drake Hotel, Chicago, June 12-13

Monday Morning, June 12

8:30 A.M. Registration—French Room Foyer 9:30 A.M. Meeting Called to Order—Walton Room

General Session

L. J. Oppenheimer, presiding

- G-1—Address of President—L. J. Oppenheimer, West Dis-infecting Co., Long Island City, N. Y. G-2—Report of Secretary—H. W. Hamilton, H. W. Hamilton
- Co., New York.

- Appointments of Committees
 G-3—Report of Treasurer—P. C. Reilly Jr., Reilly Tar & Chemical Corp., Tuckahoe, N. Y.
- "How Will State and Cooperative Buying Affect Your Business?"—C. L. Rothermel, National School Service Business?"—C. L. Rothermel, National School Service Institute, Chicago. G-5—Report of CSMA Committee on Toxicity—Dr. C. W. Kearns, University of Illinois, Urbana. G-6—American Medical Association Program on Pesticides

-Bernard E. Conley, Secretary, Committee on Pesticides, Council of Pharmacy and Chemistry, American

Medical Association, Chicago.

G-7—"Do's and Don'ts in Advertising and Selling"—P. B.

Morehouse, Director, Bureau of Stipulations, Federal

Trade Commission, Washington, D. C.

12:30 P.M. Group Luncheon-Gold Coast Room

Monday Afternoon, June 12

Aerosol Division, Ball Room

H. E. Peterson, presiding 1:45 P.M.

Paper No.

- A-1-"Aims and Purposes of the Aerosol Division" by H. E.
- Peterson of Continental Filling Corp., Danville, Ill.

 A-2—"Aerosols I. Stability; II. Insecticide Solubility" by R. C. Downing of Kinetic Chemicals, Inc., Wilmington, Del.
- A-3-"New Developments in the Aerosol Field"posium. Moderator, H. R. Shepherd, Connecticut Chemical Research Corp., Bridgeport, Conn. 1.) Propellents: "New Developments in Freon Propellents" by E. G. Young, Kinetic Chemicals, Inc.; "Nitrous Oxide, Carbon Dioxide and Their Mixtures as Propellents" by William Strobach, S. S. White Dental Manufacturing Co. Prince Roy, Staten Island, N. Y. 2.) Volvent by William Strobach, S. S. white Dental Manufactur-ing Co., Prince Bay, Staten Island, N. Y. 2.) Valves: "Precision Valves" by R. H. Abplanalp, Precision Valve Corp., Yonkers, N. Y.; "Valve Corp. of America, Valves" by P. H. Shagarin, Valve Corp. of America, Bridgeport; "Aerated Products Valves" by Daniel Michel, Dairy Whipt Corp., Chicago; 3.) Containers: "Extruded Aluminum Containers" by Robert Langdon, Victor Aerosol Container Corp., Brooklyn; "Drawn Aluminum Containers" by Philip Meshberg, American Metal Products Co., Bridgeport; "Recent Developments in Seamless Pressure Containers" by W. E. Graham of Crown Can Co., Philadelphia.

Disinfectant and Sanitizers Division, Walton Room

Dr. E. G. Klarmann, presiding 1:45 P.M.

Paper No. D-1—"Aims and Purposes of Disinfectant and Sanitizers

- Division"—E. G. Klarmann, Lehn & Fink Products Corp., Bloomfield, N. J.
- D-2-"Chlorinated Phenols in Liquid Soap"-A. G. Bowers, chief chemist, Hunt Manufacturing Co., Cleveland.
- D-3—"Microbiological Cleanliness of Dishes Washed with an Anionic Detergent Under Practical Conditions" by Lawrence Flett and Albert F. Guiteras, National Ani-line Div. Allied Chemical & Dye Corp., New York.
- D-4-"Versene with Quaternary Compounds" by Frederick C. Bersworth and J. J. Singer of Bersworth Chemical Co., Framingham, Mass.
- D-5—Subject to be announced. H. M. Toombs, Chief Engineer, Stevens Hotel, Chicago.
- D-6—"Evaluation of Antiseptic Soaps"—Dr. Arthur R. Cade, Givaudan-Delawanna Inc., Delawanna, N. J. (A mo-

Insecticide Division, French Room

T. Carter Parkinson, presiding 1:45 P.M.

- I-1—"Aims and Purposes of the Insecticide Division"—T.
 Carter Parkinson, McCormick & Co., Baltimore.
- I-2-"Role of the Consulting Laboratory in the Development and Testing of Insecticides"—Dr. L. C. Barail, U. S. Testing Co., Hoboken, N. J.
- I-3—"Status of Toxicity Work on Insecticides"—M. R. Stephens, Food and Drug Administration, U. S. Department of Agriculture, Chicago.
- I-4-"Tentative Methods of Test for Resistance of Textiles to Insect Pests"-G. R. Ferguson, Geigy Co., Bayonne,
- I-5-"Studies on Insecticide Resistance of Flies and Mosquitoes"-E. F. Knipling, In Charge, Division of Insects Affecting Man and Animals, U. S. Dept. of Agriculture, Washington, D. C.
- I-6-"Insecticide Resistant Housefly Studies in California" Ralph B. Marsh, University of California, Berkeley.
- I-7-"Toxicity Hearings"-John D. Conner, general counsel, Chemical Specialties Manufacturers Association, Inc., Washington, D. C.

Soap, Detergents and Sanitary Chemical Products Division, Room M-18

H. W. Zussman, presiding 2:30 P.M.

Paper No.

- S-1—"Aims and Purposes of Soap, Detergents and Sanitary Chemical Products Division"—H. W. Zussman, Alrose Chemical Co., Providence, R. I.
- S-2—"The Uses of Fatty Acids and Composition Specifica-tions"—a symposium—Moderator: A. G. Peck, Peck's Products Co., St. Louis.
 Participants: D. H. Wheeler, General Mills, Inc., Minneapolis; L. Sutger, Wilson-Martin Co., Philadelphia; neapolis; L. Sutger, Wilson-Martin Co., Philadelphia; R. A. Behrman, Emery Industries, Inc., Cincinnati; J. W. Ransom, Woburn Chemical Co., Harrison, N. J.; S. Zinzalian, E. F. Drew & Co., Boonton, N. J.; R. E. Wieck, A. Gross & Co., New York; F. E. Lacy, Swift & Co., Chicago; W. G. McLeod, W. C. Hardesty Co., New York; W. G. Andrews, Archer-Daniels-Midland, Minneapolis; J. Whitler, Armour & Co., Chicago.

Waxes and Floor Finishes Division, Georgian Room

Bayard S. Johnson, presiding 1:45 P.M.

W-1-"Aims and Purposes of Waxes and Floor Finishes Division"-B. S. Johnson, Franklin Research Co., Philadelphia.

W-2—"Carnauba Wax Outlook"—A. J. Bohart, President, American Wax Importers & Refiners Association, Inc.,

New York. W-3—"A Critical Study of Carnauba Wax Properties" Charles J. Marsel, College of Engineering, New York University.

W-4—"Sugar Cane Wax"—Elbert S. McLoud, chief research chemist, S. C. Johnson & Son, Inc., Racine, Wis. W-5—"Paraffin Waxes"—Donald Jones, Staff Engineer, In Charge Oils and Waxes, Atlantic Refining Co., Philadelphia.

W-6—"Waxes and Resin Blends in Water Emusion Waxes"
—H. J. Mellan, Durez Plastics and Chemicals Inc.,
North Tonawanda, N. Y.

Tuesday Morning, June 13

Joint Session—Aerosol and Insecticide Divisions, Walton Room

H. E. Peterson and T. Carter Parkinson, presiding 9:00 A.M.

Paper No.

A&I-1—"Basic Information on Low Pressure Aerosol Nozzle Design"—R. A. Fulton and A. H. Yeomans, Insecticide Investigations, Bureau of Entomology & Plant Quar-

antine, U.S.D.A., Beltsville, Md.

A&I-2—"Allethrin in Aerosols"—Herman Schroeder, entomologist, U. S. Industrial Chemicals, Inc., Research and Development Laboratory, Baltimore.

A&I-3—Allethrin symposium. Moderator: Alfred Weed, John Powell & Co., New York. "General Nature of Allethrin and Its Specifications"— R. W. McNamee, Carbide & Carbon Chemicals Div., New York.

"Standardization, Analysis and Storage of Allethrin" -J. B. Moore, McLaughlin Gormley King Co., Min-

neapolis. "Toxicity of Allethrin-with particular reference to Rats"-Donald F. Starr, S. B. Penick & Co., New

York. "Biological Tests of Allethrin Without a Synergist"-

Kenneth B. Nash, John Powell & Co., New York.
"Biological Tests of Allethrin in Combination With
Synergists"—Howard A. Jones, U. S. Industrial Chemicals, Inc., Baltimore, Md. Summary of Presentations: Speaker to be announced.

Question and discussion period.

A&I-3A-"Liquefied Gas Propelled Aerosol Licensing and Registration"—S. A. Rohwer, R. A. Fulton and R. H. Nelson, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture.

A&I-4—New Developments in Household Insecticides—a symposium. Moderator: A. C. Miller, Gulf Research & Development Co., Pittsburgh, Pa.
"Lethane in Aerosols"—J. P. Nichols, Rohm & Haas

Co., Philadelphia.

"Lindane Space Sprays and Aerosols"—R. O. Cowin, Standard Oil Co. (Ohio), Cleveland. "Progress Report of Toxicological Study of Chlor-dane in Aerosols"—Sylvan Witherup, Kettering Foun-dation, Univ. of Cincinnati.

"Chlordane for the Control of Subterranean Termites"

—C. C. Compton, Julius Hyman & Co., Denver. "Sulfox-cide"—D. F. Starr, S. B. Penick & Co., New

"Synergist 264"—J. B. Moore, McLaughlin Gormley King Co., Minneapolis.

Disinfectant and Sanitizers Division, French Room 10:30 A.M.

W. X. Clark, presiding

D-7—"Public Health Aspects of Sanitation"—Joel I. Con-nolly, assistant to the president, Chicago Board of

D-8—"Hypochlorites vs. Quaternaries"—Vladimir Dvorkov-witz, Diversey Corp., Chicago,

D-9—"Basis for the Analysis of Quaternary Ammonium Germicides and Detergents of Ethylene Oxide, Con-densation Type and Mixtures Thereof"—Dmitry A. Schiraeff, General Dyestuffs Corp., New York.

Soap, Detergent and Sanitary Chemical Products Division, Room M-18

H. W. Zussman, presiding 9:00 A.M.

Paper No.

S-3—"Evaluation of Paint and Linoleum Cleaners"—J. A. Harris, in charge detergent research, Monsanto Central Research Laboratories, Dayton,

S-4-"End Use Foam Testing"-J. G. Sinsheimer, Fuld Bros. Inc., Baltimore.

S-5—"Recent Developments in Nonionic Surface Active Agents"—martin J. Cross, General Dyestuffs Corp., New York.

S-6-"Sulfonation of Alkyl Aryls"-J. E. Kircher, Sharples

Chemicals Inc., Philadelphia.

S-7—"Whitening Agents in Household Soaps and Detergents"
—Edwin Stearns, Calco Division, American Cyanamid Co., New York.

Waxes and Floor Finishes Division, Georgian Room

M. J. Flanagan, presiding 10:00 A.M.

W-7—"Misuse of Federal Specifications"—W. W. Walton, U. S. Department of Commerce, National Bureau of Standards, Washington, D. C.

W-8—"Maintenance of Floors with Water Emulsion Paste
Waxes"—Joseph Green, Oil Specialties & Refining Co., Brooklyn.

W-9—"Resin Dressings for Composition Flooring"—Gerard R. DeNapoli, technical director, Masury-Young Co., Boston.

W-10-"Testing Wear Resistance of Floor Wax by Means of Radioisotopic Techniques"—Bernice Cummings, U. S. Testing Co., Hoboken, N. J.

Tuesday Afternoon, June 13 Group Luncheon

12:30 P.M. "The Success Story of 'Glass Wax'"—August C. Ragnow, Campbell-Mithun Inc., Chicago,

General Session, Gold Coast Room

C. L. Weirich, presiding

2:30 P.M. "What's New in Regulations?"-G. S. McInerny, Boyle-Midway, Inc., New York, N. Y. Report of resolutions committee. Unfinished business.

New business 3:30 P.M. Aerosol Division H. R. Shepherd, presiding.
Scientific Committee report: a.) E. G. Young,
Kinetic Chemicals, Inc.; b.) Individual Committee Reports: 1.) New York City Fire Department Situation; 2.) Check List; 3.) Others;

Market Committee Report.
Disinfectant and Sanitizers Division
Dr. E. G. Klarmann, presiding. 3:30 P.M

Committee reports and unfinished business. Insecticide Division 3:30 P.M. T. Carter Parkinson, presiding.

Committee reports and unfinished business 3:30 P.M. Soap, Detergents and Sanitary Chemical Prod-ucts Division Bernard Freudenthal, presiding.

Committee reports and unfinished business. Waxes and Floor Finishes Division 3:30 P.M. B. S. Johnson, presiding.

Committee reports and unfinished business. Waxes and Floor Finishes Scientific Committee 3:30 P.M. Meeting—C. S. Kimball, chairman.

Discussion: Cooperative Test Projects.

Closed meeting. 6:00 P.M. Cocktail Party, Walton Room. 7:30 P.M. Informal Dinner and Show, Ball Room.

INSECTICIDES for livestock

Lindane and toxaphene are recommended as sprays on livestock other than dairy animals . . . repeated applications found non-toxic.

By E. F. Knipling*

Bureau of Entomology & Plant Quarantine, U.S.D.A.

The insecticidal efficacy of a new material for the control of insects affecting livestock represent only the first step in appraisal of its potential usefulness. A second step, which may require as much or more research, is the consideration of the toxicity of the insecticide to man and animals.

We have known for some time that toxaphene, benzene hexachloride, chlordane, TDE, methoxychlor, and certain materials used in combination with pyrethrum are highly effective against certain pests of livestock. Some of the new materials not now recommended might well be recommended for controlling a number of livestock pests had we more information on their toxicology.

Recent experience with DDT residue problems in dairy products has, I am sure, made us more cognizant of the need for a consideration of many toxicological problems before a new material is recommended or sold as a general livestock-pest insecticide. However, from our experience with DDT we have learned what types of investigations are required to determine the residue problems likely to be encountered with new insecticides. Studies in the future, as in the past, will of course include research on the insecticidal value of a given material. But in addition, information must be obtained on its acute chronic toxicity to animals when applied to them, on the extent to which animal products become contaminated with insecticide

residues, and on the health hazard to consumers of such products if significant amounts of residues do occur through their use.

Since no single institution is investigating all aspects of such problems, it is obvious that there must be close cooperation and coordination of research and an exchange of information before a material can be recommended for specific purposes.

Horn Flies

POR several years cooperative studies have been conducted by the agricultural experiment stations in Kansas, Missouri, and Oklahoma, the National Livestock Loss Prevention Board, and the Bureau of Entomology and Plant Quarantine to determine the value of various new insecticides for the control of horn flies. These investigations have shown that DDT, methoxychlor, TDE, toxaphene, and chlordane are about equally effective against this pest. Other studies on horn flies conducted by the Bureau in the vicinity of Kerrville, Texas, have led to the same general conclusion. When the Bureau issued recommendations in the spring of 1949 that DDT not be applied to dairy cows, it was necessary to consider all the available data on the effectiveness and toxicology of the various materials in order to suggest substitutes for DDT. Methoxychlor was indicated to be satisfactory from both standpoints and this material was recommended as one of the substitutes. Pyrethrum sprays, alone and in combination with piperonyl butoxide, were also recommended as safe and effective insecticides for horn fly control, although information was limited on the duration of their effectiveness when used at various concentrations and in different types of formulations.

Research was undertaken in Texas early in the 1949 season to evaluate the effectiveness of methoxychlor and of a combination of pyrethrum and piperonyl butoxide for controlling horn flies on dairy cows. Sprays containing 0.1 per cent of pyrethrins plus 1.0 per cent of piperonyl butoxide applied at the rate of about 1 quart per animal, or one-half these concentrations applied at the rate of 2 quarts per animal, were effective for about 1 week. Methoxychlor at the recommended concentration of 0.5 per cent applied at the rate of 2 quarts per animal protected against horn flies for 2 to 3 weeks. Comparable results were also obtained in tests conducted in cooperation with the experiment stations of Oklahoma, Kansas, and Missouri, and the National Livestock Loss Prevention Board. In the Midwestern States the studies also included tests on dairy and beef cattle employing lindane at 0.025-per cent concentration and toxaphene at 0.5 per cent. In general, methoxychlor and toxaphene proved equally effective followed closely by lindane.

Stable Flies

STUDIES on stable flies at the Kerrville laboratory have been intensified, because current methods of control for this pest are far from satisfactory. The application of DDT as

^{*} Before Chemical Specialties Manufacturers Association, Washington, D. C., December 1949,

pest control

a residual spray in barns under some conditions greatly reduces the annoyance caused by this pest. The application of DDT to animals does not protect them from stable fly attack. However, most of the flies that feed for several days after treatment of cattle are killed by the DDT residue. How important the killing of flies that feed once on treated animals is in reducing the over-all stable fly population has not been determined.

Various techniques to evaluate stable fly repellents and toxicants have been developed at the Kerrville laboratory. They consist of screening tests using white mice as hosts (Eddy and McGregor¹) followed by tests using cattle in screened stalls containing reared stable flies. The more promising materials are then tested against wild stable flies on cattle. Emphasis has been placed on long-lasting treatment using wet sprays applied thoroughly rather than on light mist sprays as used extensively in the past.

Pyrethrum is the most effective insecticide tested for protecting cattle from stable fly attack when employed as a spray at concentrations of 0.05 to 0.1 per cent of pyrethrins, and applied at the rate of 1 to 2 quarts per animal. The addition of piperonyl butoxide, about 10 parts to 1 part of pyrethrins, increases the duration of effectiveness somewhat.

Although results of tests against stable flies have been extremely variable, 2 quarts per animal of a spray containing 0.05 per cent of pyrethrins and 0.5 per cent of piperonyl butoxide usually protects cattle for about 5 days when tested in screened stalls. Pyrethrins alone under the same conditions will remain effective for about 3 days. In field tests against wild flies near Kerrville these same treatments remained effective about half as long.

Methoxychlor used as a 0.5per cent spray will decrease biting of stable flies for 2-3 days, but repellency is usually not complete. However, most



Photo courtesy U. S. Industrial Chemicals, Inc., New York.

Cows being sprayed for horn flies with a three-gallon pump-up sprayer. (Yardville, N. J.)

of the flies that succeed in feeding during this period, or longer, die as a result of contact with the methoxychlor residues.

There is a definite need for a long-lasting material to protect live-stock from stable fly attack. For use on dairy cows that can be readily treated, the available insecticides serve a useful purpose. However, none of them are sufficiently long lasting to be generally practical for protecting range animals.

At the June 1949 meeting of the N.A.I.D.M. I reviewed the studies in progress on residual insecticides for controlling the house fly (Knipling, 2). Investigations at the Orlando, Fla. and Kerrville, Tex. laboratories were continued through the last season. Studies were also conducted in Kansas, Missouri, and Oklahoma in conjunction with the cooperative horn fly studies already mentioned.

DDT has provided erratic and generally unsatisfactory control of house flies because of the resistance developed by this insect. It has also been well established that flies highly resistant to DDT are usually sufficiently resistant to methoxychlor to cause undependable results with this insecticide. Chlordane was the most effective insecticide tested in the vicinity of Orlando. In general, however, lindane proved effective in tests conducted in the Midwest, in Texas, and in Florida. This insecticide applied at the rate of 25 to 50 mg. per square foot usually provided excellent control of flies for 2 to 4 weeks. Toxaphene controlled flies for about 3 weeks.

Although several of the available residual insecticides have been found to control flies for several weeks,

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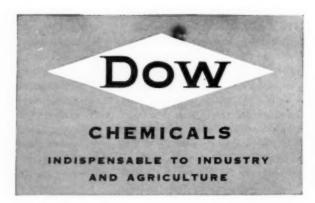
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it is obvious that house fly control has become more difficult and costly since this insect has acquired resistance to DDT. The use of residual sprays at intervals of several weeks throughout the fly season will prove time consuming and expensive. For this reason special emphasis is being devoted to research on simple and economical methods of applying insecticides in dairy barns and other buildings where flies congregate. Attention will be given to control measures directed against immature stages as well as the adults.

Ticks

ALTHOUGH ticks affecting livestock are not generally distributed throughout the country as are flies, they are of great importance in many localized areas, particularly in the Southern States. A great deal of effort has therefore been devoted during recent years to investigations on their control.

Toxaphene, chlordane, and lindane are effective against most or all of the important ticks affecting livestock, including the lone star tick, the winter tick, the Gulf Coast tick, the ear tick, and the cattle tick. Lindane is by far the most effective against all stages of the ticks present on animals, killing all forms at concentrations of 0.03 per cent or lower. However, this insecticide does not provide long-lasting protection, and for this reason is especially useful in combination with DDT or some other insecticide.

Toxaphene at 0.5 per cent concentration will kill all stages of the ticks mentioned and will protect animals from reinfestation for 2 weeks or longer depending on the species of the tick. Chlordane has not been tested as extensively as toxaphene, but against the lone star tick, the winter tick, and the ear tick it has given comparable results.

Methoxychlor, TDE, and DDT used alone are generally unsatisfactory because the engorged ticks are highly resistant to these insecticides. However, against the lone star and Gulf Coast ticks DDT provides protection against reinfestation comparable with

that obtained with toxaphene and chlordane.

Lice

M OST of the new insecticides are highly effective against lice on cattle, swine, and goats. Generally with a single treatment a spray containing 0.5 per cent of DDT, chlordane, toxaphene, TDE, or methoxychlor will provide practical control of short- and long-nosed cattle lice. Lindane at a concentration of 0.03 per cent will also effectively control these lice on cattle. Complete eradication of lice from herds can seldom be expected with these insecticides used as sprays, however, because of the difficulty of obtaining complete coverage of animals. In the Southeast, where the tail louse is prevalent, workers at the Savannah, Ga., laboratory of the Bureau of Entomology and Plant Quarantine have found that higher concentrations of insecticide are usually required to control the tail louse than are necessary for other cattle lice. Most cattle in this area are short-haired and much less spray or dip is retained when they are treated. This may explain in part why higher concentrations of insecticides are required. DDT at 1.5per cent concentration and methoxychlor at 1.0 and 1.5 per cent have given complete control of the tail louse. A spray containing 0.05 per cent of pyrethrum and 0.5 per cent of piperonyl butoxide gave complete control of motile forms of the tail louse, but considerable numbers of young lice were present 2 weeks after treatment. Similar results with this combination have also been obtained against the short-nosed louse in Texas.

Lice on goats are readily controlled with dips containing 0.2 to 0.25 per cent of DDT, TDE, methoxychlor, toxaphene, or chlordane. Benzene hexachloride dips containing 0.025 to 0.03 per cent of the gamma isomer will also provide good control. However, it is not possible to determine accurately the relative effectiveness of all the new materials when tested at lower concentrations. Toxaphene seems to be among the best, however, because one treatment in a dip containing 0.1 per cent of this in-

secticide has completely controlled the common biting lice as well as the sucking lice on goats.

The hog louse is also satisfactorily controlled with the various insecticides, although comparative tests have been limited. Indications are that toxaphene and chlordane are superior to DDT, methoxychlor, and TDE. Benzene hexachloride at 0.025 per cent of the gamma isomer is indicated to give good control but not eradication from the herd.

Sheep Tick

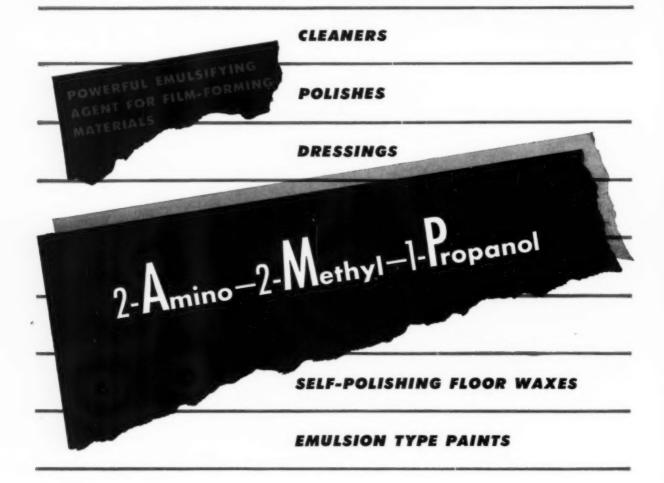
TESTS in Oregon by members of the Corvallis, Ore., laboratory have shown that dips containing 0.2 per cent of DDT, TDE, or methoxychlor, 0.05 per cent of chlordane or toxaphene, or benzene hexachloride at 0.006 per cent gamma provide complete control of sheep ticks. Ground derris or cube containing 5 per cent of rotenone used at the rate of 8 ounces per 100 gallons also provides complete control.

Tests have shown that complete or near complete control of the sheep tick is difficult with sprays containing any of the new insecticides or rotenone. However, in Oregon and Texas good results have been obtained under certain conditions when sprays containing 0.5 per cent of chlordane. toxaphene, or DDT are thoroughly applied. Good control has also resulted with sprays containing 0.05 per cent of gamma benzene hexachloride. The degree of control obtained with sprays depends on the thoroughness of application, length of fleece, time of year, and possibly other factors. Best results are obtained when sprays are thoroughly applied during warm seasons and when the wool of the animal is less than 2 inches in length.

Toxicological Studies

OME important investigations have been carried out during recent months on insecticide residues in the meat and milk of animals that have been treated with insecticides. At the

¹ The investigations on the toxicology of insecticides conducted by the Department of Agriculture were carried out as a part of the research program of the Research and Marketing Act.



PROPERTIES OF PURE MATERIAL

Molecular Weight89.14
Melting Point, °C30 to 31
Boiling Point, °C165 at 760mm
Specific Gravity0.934 at 20/20°C
pH at 20°C of 0.1M Solution11.3
Vapor Pressure at 20°Capprox. 1mm
Flash Point (Tag. open cup)159°F
Solubility in Water g/100 m1 at 20°Ccompletely miscible
Index of Petraction at 20°C 1.440

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The higher fatty acid soaps of AMP possess extremely high emulsifying efficiency and are stable in color. AMP's moderately high boiling point (165°C) minimizes evaporation loss and objectionable fumes during manufacture of emulsions—without detracting from desirable water resistance and durability of the film.

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Photo courtesy U. S. Industrial Chemicals, Inc., New York.

An aerosol made with a high-speed Microsol unit and a Pyrenone concentrate is used for treating both animals and barn for all flies and gnats present.

June, 1949, meeting of this association I reviewed the investigations on milk contamination with DDT when applied as a residual spray in dairy barns (2).

Experiments to determine to what extent lindane will contaminate milk when applied as a residual spray in dairy barns were conducted by the Bureau of Entomology and Plant Quarantine in cooperation with certain manufacturers and distributors of this insecticide, and were coordinated with similar studies conducted at Rutgers University. Studies to determine to what extent lindane appears in milk when dairy cows are treated with this insecticide were coordinated with similar tests conducted at Cornell University. Analyses for lindane in milk were made by the Hooker Electro-Chemical Company employing a modification of the method described by Frawley and Davidson (3).

It was shown that lindane emulsions or wettable-powder sprays applied at the rate of 25 mg. of lindane per square foot did not result in detectable amounts of lindane in the milk from dairy cows subsequently housed in the treated barns. The chemical method employed is reported to detect lindane if present in amounts exceeding 0.2 part per million. No lindane was found in the milk even though in some tests the feed troughs and drinking fountains were not covered during the spraying.

When a wettable-powder spray

containing 0.1 per cent of lindane was applied to dairy cows, about 2 p.p.m. of lindane appeared in the milk on the first day after treatment, but after the third to the fifth day it had disappeared. This concentration is higher than would normally be used for controlling livestock pests. One cow treated with a 0.05-per cent lindane spray, which is about the highest concentration employed, showed a maximum of 1 p.p.m. in the milk. Another cow was treated with a 0.03-per cent spray and at the same time was fed 100 mg. of the insecticide; the milk contained a maximum of 0.6 p.p.m. of lindane.

The absorption and storage of insecticides in fatty tissues has been given special attention at Kerrville. These investigations have been greatly facilitated through the development of efficient and safe biopsy techniques of taking fat samples from experimental animals. The technique has been perfected by R. D. Radeleff, veterinarian of the Bureau of Animal Industry assigned to the station.

Studies on storage of insecticidal chemicals in animal fat have for the most part been conducted on beef cattle. The general procedure is to take fat samples for chemical analysis before the animals are treated and at about 1-month intervals during and after treatment.

Experiments on the storage of DDT in fat were conducted on eight Hereford cows, each with a suckling

calf. Four of the cows were sprayed five times at 1-month intervals with 1 gallon of wettable-powder spray containing 0.5 per cent of DDT. The other four were sprayed with xylene-Triton X-100 emulsion spray containing the same concentration of DDT. One month after the last application the fat from the cows averaged 15 p.p.m. of DDT. Only half the calves from each group were treated. One month after the last treatment the treated calves averaged 52 p.p.m. of DDT in the fat; those not treated but which were consuming milk from the treated mother cows averaged 25 p.p.m.

Extensive tests with toxaphene were run in cooperation with the manufacturer. A total of 36 feed-lot steers were divided into groups and thoroughly treated with an emulsion spray containing 0.5 per cent of toxaphene. Applications were made at 2week intervals, the different groups receiving from 1 to 12 treatments. Several animals were treated six times at monthly intervals. Biopsy fat samples were taken at intervals during treatment. No apparent increase in organic chlorine over that of the samples taken from untreated check animals was shown in these tests.

In another experiment steers and heifers on range grass were treated 12 times at 2-week intervals with xylene-Triton emulsions of toxaphene, chlordane, or technical benzene hexachloride (12 per cent gamma), and with a toxaphene-kerosene-Atlas G-1045 emulsion. The toxaphene and chlordane sprays contained 0.5 per cent of the insecticide and the benzene hexachloride spray contained 0.025 per cent of the gamma isomer and 0.18 per cent of other isomers. Each insecticide was applied to 4 steers and 4 heifers about 7 to 9 months old at the start of the experiment. The major objectives of the experiments were to determine if the repeated treatments affected the health or rate of growth of the animals and to determine the amount of insecticidal residue which would be stored in the fat.

There was no evidence of adverse effect of any of the treatments

(Turn to Page 155)

chlordane



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Newly elected officers and directors of the National Sanitary Supply Assn. at their first meeting. Seated left to right: Sid Solomonson, Jr., Southern Regional vice-president; James H. Wheeler, central regional vice-president; Leo Mooberry, western regional vice-president; Searcy Ridge, vice-president; Guy P. Robbins, director; Al Candy, Jr., president;

Leo J. Kelly, executive vice-president; William O. Conley, director; standing left to right: Lacy E. Crain, secretary of the board; Walter O. Krebs, treasurer; John F. Walsh, southern regional vice-president; Dewey I. Doyle, director; Jack Kahn, eastern regional vice-president; Carl B. Lien, retiring president, who automatically becomes director.

N.S.S.A. Meets, Elects Candy

DOPTION of a code of ethics, the election of Al Candy, Jr. of Candy & Co., Chicago, as president, the staging of the largest exhibit of sanitation products in the history of the association and record attendance at luncheonmeetings were among the highlights of the 27th annual convention and merchandise exhibit of the National Sanitary Supply Association, held May 7-10, at the Stevens Hotel, Chicago. Registrations for the affair topped last year's reported figure of 3,000. The number of exhibits was 140, as compared with approximately 120 last year, and 66 four years ago.

Although the 1952 annual meeting of the N.S.S.A. is to be held at the Stevens Hotel, Chicago, Mar. 23, 24, 25 and 26, no date or place for next year's meeting have been set as yet. Because of the growth of the organization to the point where only a few hotels are large enough to handle such a meeting, the 1951 meeting may be held in some city other than Chi-

cago. New York has been mentioned as a possible meeting place for next year, since the Stevens is not available.

Officers elected at the meeting, in addition to Mr. Candy, are: vicepresident, Searcy Ridge, Gateway Chemical Co., Kansas City, Mo.; treasurer, Walter O. Krebs, American Standard Manufacturing Co., Chicago; secretary of the board, Lacy E. Crain, Conco Chemical Co., Dallas, reelected; eastern regional vice-president, Jacob Kahn, Windsor Wax Co., Hoboken, reelected; western regional vice-president, Leo Mooberry, Best Maintenance Supply Co., Los Angeles; Southern regional vice-president, John F. Walsh, Tesco Chemicals, Inc., Atlanta, reelected; southwestern regional vice-president, Sid Solomonson, Jr., Dixie Disinfecting Co., Dallas; central regional vice-president, James Wheeler, Sr., Essential Chemicals Co., Milwau-

Directors chosen at the meeting include: Carl B. Lien, Lien Chemical Co., Chicago, retiring president; Dewey I. Doyle, Doyle Vacuum Cleaner Co., Grand Rapids, Mich.; William O. Conley, Conley Chemical & Supply Co., Spokane, Wash., reelected; Bernard Freudenthal, Chemical Service of Baltimore; Guy P. Robbins, Geo. B. Robbins Disinfectant Co., Cambridge, Mass.

Leo J. Kelly continues as executive vice-president.

Among other association business concluded at the meeting was the approval to change the association from a Michigan to an Illinois corporation. A proposed rule covering application for membership in the association after considerable discussion was not voted upon at the meeting, but will be explained by mail and voted on next year.

The emphasis on recruiting and training of sales personnel was discussed extensively at the meeting on the afternoon of May 9, by William Rados, sales training consultant of Millburn, N. J.

Two \$100 bills were won on

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the second and third days of the convention by Edwin Wilson of Ludwig Wilson Co., Chicago, and J. E. Thompson of Thompson's Janitor Supply Co., Dayton, O., respectively. They were the 25th men to shake hands with and correctly identify Malcolm Zucker of the State Chemical Manufacturing Co., Cleveland, May 8th's "Mr. X" and Ethan Moulder of Moulder-Oldham, Tulsa, who, played the mystery role the following day.

Featuring the discussion portion of the convention program in the post-luncheon meeting May 8 was a showing of the film, "The Cleaning and Maintenance of Soft Floors." Following the presentation of the sound-color motion picture was a symposium discussion of how various members had used the film to good advantage in their areas.

Opening the first session of the convention in the Boulevard room of the Stevens on May 8 was N.S.S.A. president, Carl B. Lien of Lien Chemical Co., Chicago, who officially convened the meeting and welcomed what he termed "the largest group ever gathered together in the interests of this industry."

After mentioning the spectacular growth of the industry, Mr. Lien stated that the sanitary supply business has "grown from a simple business to a very complex and technical industry." He predicted a "greater growth than ever in the next fifty years."

The sanitary supply business aids produced by the association during 1949 were termed "excellent" by Mr. Lien. Those mentioned included the association's national advertising program; booklets on window washing, floor manitenance and the sanitary maintenance check forms; the association's film: "The Care and Maintenance of Soft Floors," the value of which was singled out for special mention, as was its director, Mohe Solworth of Sanitation Counsellors, Louisville; and association bulletins, etc. All these aids were designed to help sanitary supply firms meet the challenge of the buyers' market, Mr. Lien said.

"In order to survive success-

CODE OF ETHICS

of the

NATIONAL SANITARY SUPPLY ASSOCIATION

WE, THE MEMBERS OF THE NATIONAL SANITARY SUPPLY ASSOCIATION,

Recognizing Our Obligation To Serve Our Country And The Health Of The People Of Our Country, And Aware Of Our Responsibility To Our Industry, Herewith, Set Forth The Creed By Which We Endeavor To Fulfill Our Obligations And Responsibilities.

- I. We Believe The Merchandising Of Sanitary Supplies To Be So Closely And Directly Related To The Standard Of Our Country's Public Health That We Must, In All Our Business Transactions, Keep The Purpose Of Serving The Public Health Foremost In Our Minds.
- II. We Believe The Sale Of Our Services And Sanitary Supplies, Chemicals, And Maintenance Equipment For A Profit Is Ethical And Proper So Long As All Parties To The Transaction Are Benefited Thereby.
- III. We Believe The Public Health Demands That Only High-Quality Merchandise And Services Be Offered To The Public And We Pledge Ourselves To This End And Further Pledge Ourselves To Render Complete Service With Every Sale We Make.
- IV. We Believe Our Products And Services To Be So Essential To The Maintenance Of A High Level Of Public Health That We Herewith Pledge Ourselves To Advertise And Sell Our Products And Services Only On Their Merits At All Times.
- V. We Believe That We Must Aid In Educating The Public In Proper, Efficient, Sanitation Methods, So That The Public Health May Be Maintained And Improved.
- VI. We Believe Continuing Product And Methods Research Will Aid In Bettering The Level Of Public Health And We Therefore Pledge Our Continued Support Of All Scientific Research Pertinent To Our Industry And We Pledge Further To Keep Alert In Our Search For New Developments And To Assist Such Developments Whenever Possible.
- VII. We Believe It Is Our Duty To Act In Every Instance In Such Manner That We May Command The Respect Of The Public For Our Industry And The Goals Toward Which We Strive.
- VIII. We Believe Our Industry To Be A Dignified One Intrusted With The Health Of Our Great Nation And Therefore We Pledge That We Shall Do Our Utmost To Deserve This Trust. We Shall Continue To Apprize Our Sales Representatives Of Our Ideals And Policies And Continue To Educate Them To Know The True Value Of The Merchandise And Services We Sell, Mindful That If They Are Not Informed Or Misrepresent, Intentionally Or Unintentionally, Harmful Effects To The Public And Our Industry Are Sure To Follow.

Adopted at National Convention, Chicago, May 8, 1950.

fully, we must wake up and prepare ourselves for creative selling," Mr. Lien declared. "If we will but learn how to substitute creative selling for competitive selling that many may be

trapped into doing, our standard of success will rise still higher. Learn how to do unusual things," Mr. Lien urged.

To make the sanitary supply

ODORANTS AEROSOLS

AVAILABLE ODOR TYPES INCLUDE:

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The success of your aerosol product may well hinge upon the appeal of its fragrance. Our present selection of odorants for aerosols provides a wide choice of economical yet highly effective and pleasant fragrances. National page of the been devloped especially for such use, with particular to devloped especially for such use, with the received and preusant tragrances. All nave peen devioped especially for such use, with particular consideration for their compatibility with the propellants. consideration for their companionty with the properties ployed in insecticide sprays, room fresheners and various other products now adapted to the popular aerosol method of diagonaina. Boarrising no more than 1/10 of 10/16 other products now adapted to the popular derosor method of dispensing. Requiring no more than 1/10 of 1% for the popular derosor method of dispensing. Requiring no more than 1/10 of 1% for the popular derosor method of dispensing adapted to the popular derosor method of 1% for the 1% for the popular derosor method of 1% for the 1% complete, effective odorization, these powerful FRITZ. complete, effective odorization, these powerful rnills
SCHE AEROSOL AROMATICS represent an economical short cut to the solution of your aerosol fragrance problem.

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ousiness safe for the future, Mr. Lien advised his listeners to "learn how to shake hands with your competitor and mean it . . . work hard in your business—and love it; advertise service and give it; build a reputation and keep it; agree on a standard and stick to it. When you can sense competition and not knock it, when you can meet competition and still boost,—then your business will be safe," the speaker asserted.

"Right now, selling is the most important factor in the operation of our national economy," Mr. Lien stated. He continued, "it should be recognized as such by everyone. Your association has recognized that fact and planned this convention with emphasis on selling techniques. You cannot throw all the responsibility for improving your business on the association. You must work with the ideas and suggestions passed on to you. This is a job of teamwork-no one person can do it all-alone. The era of 'one man business' definitely is past. In the future every member of our industry will need the help of each other more than ever."

Further on the subject of selling and sales, Mr. Lien asked: "Did your selling force rust out during the war and in the years following: The seller's market of wartime slid into the seller's market of peace time as easily as one month gives way to another. The big problem continued to be making goods, and not the selling of them,

so business in general did not train its depleting and aging sales forces—it did not retrain the men that it had. Perhaps you stopped advertising, or continued to sell shoddy products, and frequently charged all that the traffic would bear. Perhaps your mind became like concrete,—all mixed up and permanently set. Have you been guilty of all or any of these?"

"Today," Mr. Lien said, "customers want and expect more things than ever before in history-and by special delivery, too. Remember, your customers are your competitors' prospects. Take good care of them. Get busy now and start selling yourself, your products, your business, your association, your profession. Let your prospects know that by buying from you, they can buy with confidence. Start telling the world that yours is the most wonderful profession of all. A profession that helps protect the health of peoples of the world by helping to prevent the spread of disease, raising the general health standards and by making this a safer, cleaner world in which to work and live."

Pointing out that "today this industry bears the best reputation it has ever had," Leo J. Kelly, executive vice-president in his report told the group that "you enjoy tremendous prestige." He warned against "destructive competition (which) with its consumer misrepresentations—with its

At the N.S.S.A. banquet in the ballroom of the Stevens, May 9.

chiseling price tactics—can only bring an entire industry into disrepute." He continued: "New products, new techniques, new chemicals, new devices and new methods are here—and more are coming almost daily. Don't permit anyone to sell your industry short—you are in for an era of greatest consumer acceptance and that means your continued success and prosperity."

Future plans of the association include the producing of more training films not only on maintenance instruction but slide films with sound recordings that will be useful in training new salesmen faster. The possibility of setting up some six or seven or more regional meetings to carry programs of immediate interest to members in those areas is also under consideration, Mr. Kelly said. He also suggested that such meetings could have as their keynote sales training.

In urging distributor members to visit the exhibits, Mr. Kelly stated that the days of small inventories are over. "Now is the time to stock up. Every indication now tells us that prices are bound to go up and that prices now are as low as they'll be for a long time," he added.

Mr. Kelly also reviewed association activities of the year including the film on floor care, which he said cost approximately \$16,000 to produce, including the set of 50 prints. He urged members to get in touch with the association offices for advice or with suggestions.



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ORBIS "AQUASPRAY" PERFUME OILS are recommended for the preparation of sprays for deodorizing and purifying foul air in homes, institutions, hospitals, theatres, etc. They require no alcohol.

By merely mixing 3 ounces of Aquaspray Perfume Oil and 3 ounces of Formaldehyde Solution U.S.P. with sufficient water to make 1 gallon, a spray in a permanent milky emulsion form is obtained at a finished cost of less than 38 cents per gallon. * This is a real profit producer.

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A request on your letterhead will bring further details and sufficient sample for 1 quart of finished spray.

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Say you saw it in SOAP!

June, 1950

CHICAGO

In his report as vice-president, Al Candy, Jr. of Candy & Co., Chicago, pointed out that it is "evident that in the future, and in order to keep up the same acceleration of growth and importance of this association and its ability to benefit the individual members, we must continually look for new projects which are acceptable, for the good of the majority of our membership." He also reviewed the earlier conventions of the National Sanitary Supply Association and pointed out that the 1950 meeting showed a gain of 100 per cent in the number of exhibitors over the 1946 gathering. Mr. Candy asked that members with ideas on possible new projects clear them through the headquarters of the association.

The treasurer's report, presented by Donald F. Peatee of Mellocraft Co., Toledo, showed that as of Jan. 1, 1950 the association had a bank balance of \$21,182, as compared with a balance of \$28,229 on the comparable date in 1949. Income for 1949 amounted to \$66,395 and expenses were \$73,442, which included \$16,000 for the film and reprints. Of the bank balance, \$20,000 is in government bonds. The second part of Mr. Peatee's report covered the period from Jan. 1, 1950 to Apr. 30, 1950. It showed income of \$66,984, office expenses of \$15,810, leaving a cash balance of \$72,356, of which \$20,000 is in government bonds. When convention expenses are deducted the balance should be around \$50,000, he reported.

The three meetings of the board of directors of the Association during the past year were reviewed briefly by secretary of the board, Lacy E. Crain of Conco Chemical Co., Dallas, Tex. Following his report the officers and board were introduced.

A nominating committee composed of the following, was then appointed: Martin Peters, Moore Brothers Co., New York, chairman; Leo Mooberry, Best Maintenance Supply Co., Los Angeles; Shim D. Lehrman, A. J. Lehrman & Son, Harrisburg, Pa.; Sam Newman, Creco Co., Long Island City, N. Y.; John F. Walsh, Tesco Chemicals, Inc., Atlanta; Jack Varley, James Varley & Sons, St. Louis.

The value of showing the association's film on cleaning and maintenance of soft floors before customer groups was discussed by Malcolm Zucker of State Chemical Co., Cleveland; Don Peatee of Mellocraft Co., To'edo; Samuel Newman of Creco Co., Long Island City, N. Y., and Joseph Lassen of American Chemical Co., New Orleans. Reactions to the film, according to the panel, ranged from orders placed as a direct result of seeing it to the establishment of valuable contacts among company executives whose firms were prospects of the sanitary supply firm displaying the

At this session the association voted to become an Illinois corporation and discussed the question of revising the eligibility for membership section of the constitution.

The meeting on the second afternoon consisted of the report of the nominating committee by Martin Peters, the election of officers and their introduction. This was followed by Mr. Rados' presentation of selling and salesmen. In it he enumerated methods of recruiting and selecting productive salesmen; told how to train them and as the third portion of his presentation showed a series of slide films on selling.

The annual banquet of the association was held the evening of May 9. Malachy J. Flanagan of Federal Varnish Co., Chicago, was chairman of the banquet and entertainment committee. Following dinner, Carl Lien, retiring president, introduced the new officers and directors of the association. He was presented with a plaque, as were Jacob Kahn of Windsor Wax Co., Hoboken, N. J., and John F. Walsh of Tesco Chemicals, Inc., Atlanta, for obtaining the largest number of new members.

Al Candy, Jr., newly elected president, thanked the group for electing him and promised to expand the activities and the usefulness of the National Sanitary Supply Association to its members.

The meeting closed officially at 2 00 p.m., May 10.

The following is a list of the exhibitors, representatives and their products:

Acme Sponge & Chamois Co., Chicago. Sponges and chamois, M. G. Cantonis, Denis Cantonis, Carl G. Cantonis, Robt. A. Geddes, J. J. Soukup.

Acorn Paper Co., San Francisco. Paper towels and cabinets. P. A. Wooster, general manager.

Advance Floor Machine Co., Minneapolis. Electric floor maintenance machines. Harold J. Pond, president; Robert J. Pond, vice president; Daniel Arones, engineer.

Air Purification Service, Inc., Newark, N. J. Glycol vaporizers. Joseph Kelley, sales manager.

Allied Block Chemicals Co., Pittsburgh, Pa. Deodorizers and deodorant blocks. L. Todd Dobkin, B. N. Rosenberg, M. J. Betris.

American Dispenser Co., New York. Soap dispensers. Burton J. Feinson, president; Max Halpin.

American Sponge & Chamois Co., New York. Sponges, chamois, dust cloths, mitts, loofas. Paul L. Mansell, vice president; P. J. Cartolano; R. L. Ostreicher; John J. Mansell; Allen B. Jones.

American-Standard Mfg. Co., Chicago. Wet mops, dust mops, applicators, mitts. Charles E. Krebs, president; Walter O. Krebs, sales manager.

American Textile Products Co., Cleveland. Wet mops, wax applicators, swabs. H. J. Lehman, president; A. S. Lowe, sales manager.

Arcade Industries, Inc., Chicago. Mopsticks. G. Peter Neville, president; Genevieve Neville, secretary-treasurer; L. V. Kelly, sales manager; John B. Burns.

S. M. Arnold, Inc., St. Louis. Sponges, chamois, bonnets, discs, mitts, applicator pads. S. M. Arnold, president; Ralph Holemon.

Atlantic Stamping Co., Rochester, N. Y. Mopping equipment, janitor metalware, galvanized metalware. M. J. Dowling, vice president; C. J. Dygert, sales manager.

Atlas Products Co., Chicago. Sand urns, dust pans, waste receptacles. Sam Brody, president; Jos. P. Dumit, chief engineer.

Baird & McGuire, Inc., Holbrook, Mass. Disinfectants, insecticides, cleaners. Gordon M. Baird, H. W. Hamilton, Anne M. Minns, chemist.

Beckley-Cardy Co., Chicago. Erasers and eraser cleaners. M. L. McCabe, manager sales distribution; J. E. Ailes, R. H. Howard.

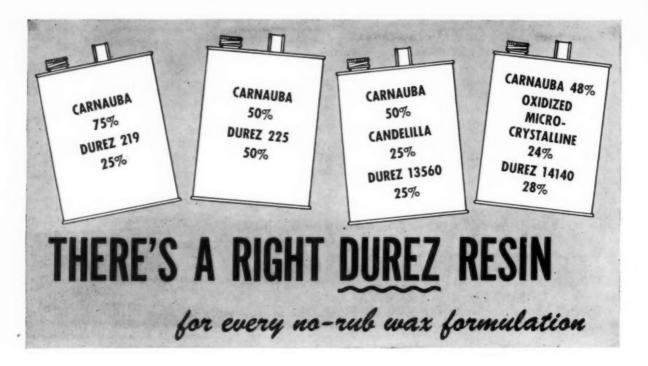
Bobrick Mfg. Corp., Los Angeles. Soap and lotion dispensers, gravity feed systems. Gordon S. Bodek, sales manager; James A. Puleo.

Boyle-Midway, Inc., New York. Floor wax and insecticides. George Ranney, sales div. manager; Ralph Hartmann, vice president; Emmett Markey.

Breuer Electric Mfg. Co., Chicago. Vacuum cleaners, blowers, floor machines, dust collectors, insecticides. A. A. Breuer, J. C. Versada, A. R. Grant, A. M. Anderson, R. L. Kline.

Burcott Mills, Chicago. Wiping cloths, towels and toweling, cheesecloth, sugar liners,

(Turn to Page 177)



Durez terpene phenolic resins are very widely used as raw materials in no-rub wax formulations, in which they serve to reduce the cost of the finished product while enhancing its most desirable properties.

The preference among manufacturers for these resins is the result of a program of research and development initiated by our research laboratories some ten years ago, when it became desirable to find effective replacements for vegetable waxes. Having inherent properties that are especially suitable in wax-resin blends, these were the first resins to offer a high degree of compatibility with carnauba and microcrystalline waxes.

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Durez resins are considered to be unsur-

passed in their ability to effect a combination of hardness and slip resistance in bright-drying emulsion type polishes. Properly formulated polishes containing these resins have excellent stability, gloss, water resistance, and wearability. With their low cost as an added advantage, they have been used in millions of gallons of polish. They are generally employed in concentrations of from 25% to 50% of the total wax and resin portion of the emulsion.

HIGH AND LOW MELTING TYPES

Durez 219 resin is a high-melting type (135°C)., emulsifiable and compatible with both vegetable and mineral waxes. Similar in all respects to this resin is Durez 225, except that it is even harder, higher melting, and produces harder films with less tack. The harden-

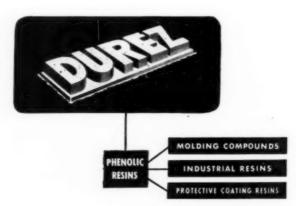
ing properties of both resins, especially 225, are used to particular advantage in formulations containing oxidized micro-crystalline waxes.

In order to bring the melting point within the range of the average wax kettle, Durez resins are also furnished in a modified form suitable for use in steam-jacketed equipment. These resins are Durez 13560 and 14140, with a melting point of about 100°C.

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Our Customer Service Laboratory will be glad to consult with you on your requirements. From our laboratory and field experience we have gathered some practical suggestions for formulating emulsions and controlling properties. Write Durez Plastics & Chemicals, Inc., 46 Walck Rd., North Tonawanda, N.Y.





PHENOLIC RESINS THAT FIT THE JOB

Low Pressure Aerosol Insecticides

IPERONYL BUTOXIDE has received wide acceptance as a synergist for pyrethrum in the many fields of insect control where only pyrethrum was available in the past (1). This has been especially true in the field of insecticidal aerosols, where its reception has been due not only to economy and effectiveness, but in a large measure to its flexibility of use, which has permitted wide latitude in the choice of ratios and concentrations and of combinations with DDT and other related toxicants. Thousands of tests over a four year period have been made with piperonyl butoxide in low-pressure aerosols, not only to explore its useful relationship in combination with pyrethrum, but also in the development of the numerous low-pressure household aerosol formulations. Some of the most recent results are presented here.

The highly effective paralytic properties of pyrethrum in low concentrations against a wide variety of insects have won for it universal acceptance for this purpose in aerosol formulations of the household type. It has, however, been necessary to add other agents to insure a sustained knockdown and a high mortality. Since its introduction into aerosols, piperonyl butoxide has been used largely to increase the knockdown value of reduced amounts of pyrethrum. It is, therefore, perhaps less well known that the remarkable degree of synergism existing between piperonyl butoxide and pyrethrum is even greater in terms of mortality than in knock-

The effectiveness of piperonyl butoxide as a synergist for pyrethrum, together with the recognized freedom from any normal hazards to health in all situations of use for both of these insecticides, is stimulating a strong in-

Combinations of piperonyl butoxide and pyrethrins when used alone or with DDT . . . permit a marked reduction in the amount of pyrethrins required for both knockdown and kill of house flies.

By H. O. Schroeder

U. S. Industrial Chemicals, Inc. Baltimore, Md.

terest in aerosol formulations that contain only these two materials as active principles. It is felt, therefore, that a presentation of the results of some laboratory tests with these two materials as sole toxicants would be pertinent and of special interest now.

Methods and Formulas Used

HE tests were made in 1000 cubic foot rooms that were constructed for this purpose, and in Peet-Grady chambers against free-flying house flies. For both kinds of chambers the method conformed closely to the tentative standard one that was adopted by the Insecticide Scientific Committee of the Chemical Specialties Manufacturers Association (1949). All flies that were not knocked down at the end of the 15 minute exposure period were collected and held in separate cages for a record of the mortality on the following day. The dead flies in this group are included in the columns of the tables headed "total mortality." The columns headed "mortality of KD flies" include only the flies that died after they were knocked down by the insecticide. The percentage figures given in both cases were calculated on the basis of the total number of flies used in the test.

All formulations were prepared and dispensers filled in the laboratory. Continental-type dispensers were used throughout. Five per cent of methylated naphthalene (PD 544-C) was used as a solvent in the formulas containing DDT. In those formulas containing no DDT an equivalent amount of heavy base (petroleum) oil, having a Saybolt viscosity of about 75 seconds at 100° F., was used in lieu of the DDT solvent to avoid substantial changes in the physical characteristics of the aerosol particles. In two formulas included the oil was omitted.

Fales et al. (1946) and Nelson et al. (1949) have shown that usually optimum insecticidal efficiency is obtained with a "nonvolatile" content of 15 per cent. All the aerosols used in the tests reported here contain this proportion of "nonvolatile" material. The complete formulations of the aerosols used are given in Table 1. The discharge rate was determined for each aerosol and the actual dosage discharged for each test was determined by weight loss on a balance sensitive to 10 milligrams.

Results

PIPERONYL BUTOXIDE and Pyrethrins with DDT.—Three ratios of piperonyl butoxide to pyrethrins were tested in formulas containing two per cent DDT, in rooms of 1000 cu. ft. The concentrations of piperonyl butoxide and pyrethrins were designed to give formulas of approximately the same cost. Aerosol

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June, 1950

TABLE 1

Composition of Low-Pressure Aerosol Formulas. All Formulas made to a "Nonvolatile" Content of 15 per cent with Deodorized Base Oil; 85 per cent of "Freon 11" and "Freon 12" in Equal Parts Used as the Propellent.

Aerosol	Fiperonyl				Heavy Base
No.	Butoxide	Pyrethrins	DDT	PD 544-C	Oil
A-111	2.0	0.25	_	_	5.0
A-115	1.5	0.3	-		5.0
A-117	1.0	0.4	-	_	5.0
A-124	1.2	0.15	2	5	MARKET .
A-126	0.9	0.18	2	5	-
A-128	0.6	0.24	2	5 5 5	and a
A-131	1.2	0.24	2	5	_
	1.2	0.48	_		5.0
	1.8	0.36	-	1000	5.0
	2.4	0.3	-	****	5.0
A-178	1.5	0.3	10000	1000	5.0
	1.7	0.34		-	5.0
A-182	2.0	0.25	MINOR.	income.	_
A-183	2.0	0.25	-		5.0
A-192		0.4	-	-	-
		0.4	2	6*	money.
o Velsicol	AR-50				

No. A-124 and 126 were about equal, and A-128 was about 10 per cent higher in cost. The results of two rates of application are given in series A and B of Table 2, and show relatively small differences in knockdown between the three formulas tested. Series C in Table 2 gives a direct comparison between the formula having the lowest concentration of pyrethrins and the Tentative Official Test Aerosol. The results show a knockdown for 0.15 per cent pyrethrins and 1.2 per cent of piperonyl butoxide with 2 per cent of DDT fully equal to the T.O.T.A. at 15 minute exposure. Since all formulas contain 2 per cent of DDT, no marked differences in mortality would be expected.

In the tests shown in Table 3, three aerosols containing a 5 to 1 ratio of piperonyl butoxide to pyrethrins were compared. Two percent of DDT was added only to the two formulas having the lower concentrations of piperonyl butoxide and pyrethrins. In a long series of tests it will be noted that the highest knockdown was obtained with the formula containing no DDT, also that the mortality of the "knocked down flies" was equal to that obtained with the formula that contained DDT. The formulas containing DDT gave a "total mortality" which averaged 3 and 5 percentage points greater than that without DDT.

Piperonyl Butoxide and Pyrcthrins Alone—Table 4 gives results obtained with combinations of piperonyl butoxide and pyrethrins in formulations containing no DDT. The three series of tests reported in this table were not run concurrently. The combined cost of the two insecticides in formulas A-111 and 115 is about the same. That for formula A-117 is about 10 per cent higher. The results in series A show a slight difference in favor of the 5 to 1 ratio.

According to the tentative official aerosol test method, either large rooms of 1000 cu. ft. content or Peet-Grady chambers may be used as test chambers. At this laboratory both methods have been used. A characteristic difference in results is obtained in direct comparisons of the two test chambers. The knockdown and mortality of flies for any given formula is invariably lower for the smaller test chamber. The result of such a comparison is given in series A of Table 4 with the formula containing 2 percent piperonyl butoxide and 0.25 percent pyrethrins. The knockdown and mortality obtained in the large test rooms in this instance was ten points higher than that obtained in the Peet-Grady chambers. This characteristic difference in results should be kept in mind when examining data obtained by the two different methods of ex-

Series B of Table 4 shows additional tests with the two ratios made at a dosage rate of about 2 grams per 1000 cu. ft. In series C a third ratio, 2½ to 1, was added in tests using a dosage rate of about 2.6 grams per 1000 cu. ft. There was almost no difference in knockdown obtained for the three ratios but the 2½ to 1 ratio gave a slightly lower kill.

Combinations of piperonyl butoxide and pyrethrins, with no DDT,

TABLE 2

Effectiveness of Three Piperonyl Butoxide-Pyrethrins Ratios in Low-Pressure Aerosols Containing DDT. Tests in 1000 cubic foot rooms; 100 flies

				per tes	t.					
Piperonyl Butoxide- Pyrethrins Ratio			DDT	No. Tests	Average Dose per 1000 cu. ft. (grams)				Per c Morta KD Flies	
SERIES A.					* *					
		0.15	2	13	3.22	21	55	86	86	95
			2		3.05	33	57	88	88	95 97
21/2-1	0.6	0.24	2	12	3.18	30	60	91	91	97
SERIES B:										
	1.2	0.15	2	9	1.97	20	48	80	80	92
5 -1	0.9	0.18	2	11	2.12	18	50	83	83	94
21/2-1	0.6	0.24	2	9	2.13	25	51	79	79	89
SERIES C:										
8 -1	1.2	0.15	2	10	3.95	32	63	95	95	99
-	-	0.4	2	10	4.04	44	66	94	94	99
	Butoxide- Pyrethrins Ratio SERIES A: 8 -1 5 -1 2½-1 SERIES B: 8 -1 5 -1 2½-1 SERIES C: 8 -1	Butoxide- Pyrethrins Ratio Piperonyl Butoxide SERIES A: 8 -1 1.2 5 -1 0.9 21/2-1 0.6 SERIES B: 8 -1 1.2 5 -1 0.9 21/2-1 0.6 SERIES C: 8 -1 1.2 SERIES C: 8 -1 1.2	Butoxide- Pyrethrins Ratio Piperonyl Butoxide Pyrethrins SERIES A: 8 -1 1,2 0.15 5 -1 0.9 0.18 21 ₂ -1 0.6 0.24 SERIES B: 8 -1 1.2 0.15 5 -1 0.9 0.18 23 ₂ -1 0.6 0.24 SERIES C: 8 -1 1.2 0.15 5 -1 0.9 0.18 23 ₂ -1 0.6 0.24	Butoxide	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					

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TABLE 3

Results Obtained with Low-Pressure Aerosols Containing Two Concentrations of a 5-1 Ratio of Piperonyl Butoxide to Pyrethrins with DDT and a Higher Concentration without DDT.

Tests in Peet-Grady Chambers; 100 House Flies per Test.

		als and on (Per cent)			Average Dose per				Per Mort	cent
Aerosol No.	Piperonyl Butoxide	Pyrethrins	DDT	No. Tests	1000 cu. ft. (grams)	Per 5 min.	cent Knockd 10 min.	own 15 min.	KD Flies	Total Flies
A-126	0.9	0.18	2	22	3.10	19	46	76	76	88
A-131 A-115	1.2 1.5	0.24	2	26 23	3.26 3.10	24 32	52 62	83 88	83 83	90 85

were tested further in direct comparison with the T.O.T.A. in 1000 cu. ft. test rooms at a dosage rate averaging about 2.7 grams per 1000 cubic feet. The combinations tested and the results obtained are shown in Table 5. It will be noted that all of the butoxide-pyrethrins formulas gave substantially higher knockdown (9 to 12 percentage points) than was obtained with the T.O.T.A. All figures for total mortality also were either equal to or as much as 4 percentage points higher than that obtained with the T.O.T.A.

Series A in Table 6 shows the results with two lower concentrations of a 5 to 1 ratio of butoxide to pyrethrins than that shown in Table 5. These tests were made in Peet-Grady chambers instead of in large test rooms. The aerosol containing 0.34 per cent of pyrethrins and 1.7 per cent piperonyl butoxide gave a much higher knockdown and a better kill than the T.O.T.A.; when the toxicants were reduced further to 0.3 and 1.5 per cent respectively, the knockdown was higher than and the mortality about equal to the T.O.T.A. The formula containing 0.4 per cent pyrethrins and one per cent butoxide also gave a knockdown better than and a mortality equal to that of T.O.T.A.

In all the tests described thus far formulas containing no DDT were prepared with 5 per cent of a heavy base oil having a Saybolt viscosity of about 75 seconds at 100° F. That such an oil is not necessary, and may even be detrimental, when DDT is omitted, is shown in Series B, C and D of Table 6. The comparisons were made with aerosols having two different ratios of piperonyl butoxide to pyrethrins. In each case substituting base oil for the heavy oil resulted in a definitely higher knockdown at 15 minutes, as well as a substantially higher mortality of flies. In the early knockdown period the effect was not noticeable. In each series of tests the formulas containing no oil gave a higher mortality than was obtained with the T.O.T.A. and a 15 minute knockdown 21 to 30 points higher than that obtained with the T.O.T.A.

Discussion

WHEN combinations of piperonyl butoxide and pyrethrins are used alone in aerosols there is usually some slight recovery of insects knocked

down during the exposure period. Also the mortality among flies which are not knocked down during the 15 minute exposure period may be somewhat lower than when a chlorinated hydrocarbon is present in the formula. In order that the mortality of all insects exposed may certainly equal or surpass that obtained with a formula containing a chlorinated compound, such as the T.O.T.A., it is essential to have a substantially higher knockdown with the butoxide-pyrethrins aerosol. This greater knockdown is in itself highly desirable since the consumer judges the quality of an aerosol in a large measure by the speed and thoroughness with which insects are paralyzed. This fact is recognized by the industry as is shown by the high knockdown standard specified for graded household oil sprays.

Although aerosols of this type will cost somewhat more than those containing DDT, there are distinct advantages which give a special appeal to the user. These include the unusual freedom from toxic hazards, and the elimination of auxiliary solvents with associated undesirable odors. Because all ingredients are liquid, there is no

TABLE 4

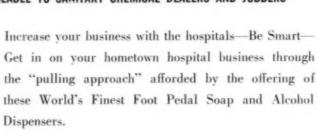
Effectiveness of Three Ratios of Piperonyl Butoxide to Pyrethrins in Low-Pressure Aerosols.

Tests in 1000 cu. ft. Rooms, and in Peet-Grady Chambers; 100 House Flies per Test.

	Piperonyl Butoxide-	Percent Con	centration		Average Dose per					cent tality
Aerosol	Pyrethrins	Piperonyl		No.	1000 cu. ft.	Per C	ent Knockd	lown	KD	Total
No.	Ratio	Butoxide	Pyrethrins	Tests	(grams)	5 min.	10 min.	15 min.	Flies	Flies
	SERIE	ES A: 1000 cu	. ft. Rooms							
A-111	8 -1	2.0	0.25	5	3.09	40	68	98	91	93
A-115	5 -1	1.5	0.3	8	3.26	36	63	99	97	97
	Pe	et-Grady Ch	ambers							
A-111	8 -1	2.0	0.25	9	3.28	26	60	88	81	83
	SERIE	ES B: 1000 cu	. ft. Rooms							
A-111	8 -1	2.0	0.25	16	2.05	26	53	93	81	82
A-115	5 -1	1.5	0.3	20	2.22	29	55	96	86	87
	SERIE	S C: 1000 cu	. ft. Rooms							
A-111	8 -1	2.0	0.25	20	2.60	36	65	94	85	87
A-115	5 -1	1.5	0.3	22	2.60	34	62	95	87	88
A-117	21/2-1	1.0	0.4	26	2.62	36	62	94	80	81

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TABLE 5

Results Obtained with Four Combinations of Piperonyl Butoxide and Pyrethrins in Low-Pressure Aerosols. Average of 14 Tests in 1000 cu. ft. Test Rooms; 100 House Flies per Test.

	Piperonyl Butoxide-	212 22 2	ial and on (per cent)		Average Dose per					cent
Aerosol Pyrethrins		Piperonyl			1000 cu. ft.	Per cent Knockdown			KD	Total
No.	Ratios	Butoxide	Pyrethrins	DDT	(grams)	5 min.	$10 \ min.$	15 min.	Flies	Flies
A-117	21/2-1	1.0	0.4		2.56	44	68	92	87	89
A-166	21/2-1	1.2	0.48	-	2.81	52	72	93	91	91
A-167	5 -1	1.8	0.36		2.91	46	73	92	91	92
A-168	8 -1	2.4	0.3	-	2.51	40	64	90	86	88
TOTA		disease.	0.4	2	2.80	30	53	81	80	88

tendency toward crystallization of the insecticide and subsequent clogging of the nozzle.

Summary and Conclusions

THE results of tests against house flies with aerosols containing combinations of piperonyl butoxide and pyrethrins are reported. Ratios of 21/2 to 1, 5 to 1 and 8 to 1 were used. DDT was included in some of the formulas. When the concentration of butoxide and pyrethrins was adjusted so that the combined cost of the two was essentially the same for each ratio, there were only insignificant differences in knockdown and mortality. When piperonyl butoxide is added to an aerosol containing pyrethrins and DDT, the concentration of pyrethrins may be reduced to less than one-half without reducing knockdown at 15 minute exposure. Various combinations of piperonyl butoxide and pyrethrins may be used alone in aerosols for obtaining a knockdown that is far superior to that of the T.O.T.A., and a mortality that

is fully equal to or better than that of the T.O.T.A. Data is given to show that the omission of heavy base oil from aerosol formulas containing only piperonyl butoxide and pyrethrum is highly desirable.

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Fulton, R. A., and S. A. Rohwer, 1949. Liquified Gas Insecticidal Aerosols. Soap and Sanitary Chemicals 25 (2) 122-4.

Anon., 1949. Tentative NAIDM Aerosol Test Method for Flying Insects. Soap and Sanitary Chemicals. 25 (5) 114-7.

Trade Marks

(From Page 67)

Co., Elkhorn, Wis. Claims use since Feb. 9, 1949.

Ware-O-Cide-This for insecti-

cides. Filed Apr. 26, 1949 by Midland Laboratories, Dubuque, Ia. Claims use since Mar. 11, 1949.

Para de Carb—This for liquid moth repellent. Filed Apr. 27, 1949 by Rite Chemical Products Co., New York. Claims use since Apr. 1, 1946.

Moth Champ—This for insecticides. Filed Apr. 29, 1948 by Cosmetest, Inc., Brooklyn. Claims use since Feb. 24, 1949.

Sanitone MC — This for mothproofing preparations. Filed May 13, 1949 by Emery Industries, Inc., Cincinnati. Claims use since May 30, 1948.

Phosfume—This for insecticide, Filed May 23, 1949 by Thompson-Hayward Chemical Corp., Kansas City, Mo. Claims use since Apr. 12, 1949.

Ozex — This for insecticides. Filed June 13, 1949 by Woodlets, Inc., Portland, Pa. Claims use since Apr. 5, 1949

Fafs—This for air deodorizers. Filed June 14, 1949 by Sheridan Co., San Carlos, Calif. Claims use since Sept. 13, 1948.

Momort—This for insecticides. Filed Apr. 12, 1949 by Crystal X Corp., Lenni Mills Pa. Claims use since July 5, 1949.

Diaparene—This for antiseptic chemical. Filed May 8, 1948 by Homemakers' Products Corp., New York. Claims use since May 5, 1948.

TABLE 6

Results Obtained with Low-Pressure Aerosols Containing only Piperonyl Butoxide and Pyrethrins as Toxicants and Showing the Effect of Adding Oil to Such Combinations.

Tests in Peet-Grady Chambers: 100 House Flies per Test.

		ronyl xide-	Per cent Heavy		ials and on (percent)			Average Dose		er cen		Per	
Aerosol No.		hrins tio	Base Oil	Piperonyl Butoxide	Pyrethrins	DDT	No. Tests	Per 1000 cu. gr.	5 min.	10 min.	15 min.	KD Flies	Total Flies
	SERI	ES A:		*									
A-117		1/2-1	5	1.0	0.4	Marcon C	8	2.87	26	53	79	74	75
A-178	5		5	1.5	0.3		8	2.76	28	51	76	69	72
A-179	5	-1	5	1.7	0.34	Name .	8	2.95	36	57	83	80	80
TOTA			_	-	0.4	2	8	3.00	20	40	63	63	74
	SERI	ES B:											
A-182	8	-1	0	2.0	0.25	-	12	3.63	26	60	89	86	89
A-183	8	-1	5	2.0	0.25		13	3.78	28	54	77	74	78
TOTA				(Marcon)	0.4	2	12	3.78	16	39	64	64	83
	SERI	ES C:											
A-182	8	-1	0	2.0	0.25	-	20	2.48	25	52	81	77	80
A-183	B	-1	5	2.0	0.25		20	2.62	29	51	75	70	73 77
TOTA			-		0.4	2	14	2.76	19	38	60	59	77
	SERI	ES D:											
A-192	21	2-1	0	1.0	0.4	_	8	2.30	23	51	86	77	79
A-117		2-1	5	1.0	0.4		8	2.12	25	48	79	71	72
TOTA		-	-		0.4	2	7	2.30	15	30	56	56	76

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Floor Products

By Blanche M. Kuschke*

Assistant Research Professor Rhode Island State College

OME floor problems are of equal concern both to producers of floor materials and the ultimate consumer of those products, the housekeeper. The housekeeper is seeking a satisfactory answer to floor care problems and the producer is striving to develop products which will insure satisfaction in use. The interests of these two seemingly unrelated groups are different, but their final objective is the same,—the attainment of satisfaction.

Home floor care problems may seem insignificant in relation to those involved in large commercial plants or institutions, but fundamentally they are the same. Each is a housekeeping job. Thus, any solution of the problems of either group is of value to both. Although the problems encountered in a single home seem trivial, when multiplied by the vast numbers of households involved, they take on tremendous proportions and equal, if not out-distance, all others. Homemakers constitute the largest occupational group in our population and the producers who can supply the materials which will solve their floor care problems will reap a rich harvest.

During the early 1930's, many requests came from women in Rhode Island to the Experiment Station asking for help with their floor problems. All too frequently help could not be given because information was lacking. A thorough search of all possible sources failed to reveal much that was helpful. Manufacturers' advertising claims did not satisfy this need and conferences with research workers in the industry yielded some useful information but more directly pointed

to the need for further research. In 1935, the Rhode Island Agricultural Experiment Station initiated the present floor research program which has continued through most of the intervening years. The work was designed to determine various types of floor problems and to attempt to find some solutions.

The first phase of the work included a series of tests with different finish materials on floors in actual use to watch for the problems which might arise and to learn as much as possible about floors and finish materials. For comparative study several floors were divided into sections and finished with different materials. In addition, a series of new stair treads were laid and finished by different methods. At the same time samples of the floor finish materials were made up on wood and composition wood blocks to be used in laboratory studies with an accelerated wear-testing machine. After the completion of this phase and the acquisition of some information a field study was undertaken in which homemakers cooperated with research workers in studying and attempting to correct specific conditions. This work has been completed and further research will be incorporated with general housing studies now in progress.

How Program Operated

A FEW samples of the different phases of the work will be given to illustrate the methods followed. For the first test the floor of the main room of the Experimental Station Library was chosen. This floor was in extremely bad condition and might eventually have had to be replaced, so that no limits were placed

on the extent of the tests to be carried on. This room received constant use and the uncovered pine floor had been in service for more than 35 years. Oil treatments had been given in the early years but in recent years nothing had been done except routine cleaning. The floor was rough, almost black from the old oil and very dirty. The remnants of oil remaining on the floor soiled everything that came into contact with it.

The surface was first thoroughly cleaned with a vacuum and washed to remove as much of the old oil and dirt as possible. After cleaning, one small area was waxed and this was set aside for comparison with the areas which were to be refinished. The remaining area was machine sanded and the cracks filled with a commercial crack filler. After the filler had dried, the floor was again lightly sanded until smooth. The sanded portion was divided into sections which would assure relatively uniform wear on all parts. Four brands of penetrating seal were used and several different areas were treated with each material. The application and maintenance procedures recommended by the manufacturer of each product were closely followed, including the kind and amount of wax applied. When the floor was first finished there was no perceptible difference in appearance between the four different products. It appeared to be entirely satisfactory and showed an enormous improvement over the area which had only been cleaned and waxed.

The test was carried on for two years. At the end of the first month all samples of one product showed a greater tendency to soil than the other three and it grew progressively worse as the test continued. This product evidently left too much free oil on the surface and not being absorbed by the wood remained to catch and hold dirt. At the end of one year the test areas were thoroughly cleaned with a commercial cleaner and refinished. The results obtained with the refinished floor were identical to those of the first year. In the final analysis, one sample gave a consistently unsatisfactory result and one

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sample was slightly superior to all others.

In another practical study, new oak and pine stair treads were laid on constantly used stairways. Seven different finishes, all in natural color, were used to finish the treads. One oak and one pine tread was included in each series and all samples were duplicated. The finish materials were those found in general use and were purchased in the local market. They included: four different short-oil floor varnishes, two penetrating seals and a spirit varnish of the shellac type.

The treads were sanded smooth, buffed with fine steel wool and the finish applied. Again the manufacturer's recommended procedure was followed for each product and a simple but uniform maintenance program was used on all. The treads were dusted with a clean dry cloth each day and cleaned by damp mopping every two weeks. In addition to this regular maintenance, the two seal samples were given one coat of wateremulsion wax following the biweekly cleaning. This test was also carried on for two years. The finishes which formed a film on the surface of the wood became scratched easily and were badly disfigured within a few months. Oak treads finished with penetrating seal were the most satisfactory, but the same finish on the pine treads was not satisfactory. At the end of each six month period the film-forming finishes were cleaned and recoated with two coats of the original material. This practice is commonly followed in homes. The penetrating seal finishes were cleaned and one coat of seal was applied followed by wax. None of the film forming finishes looked well after refinishing as the old scratches and scars showed through the new, giving a patched appearance. The penetrating seal restored the oak treads very well but the pine flooring could not be cleaned satisfactorily.

At the time the floors and stair treads were finished, a series of samples were made on wood and wood composition blocks using the same products. These were tested in the laboratory with an accelerated wear testing device especially built for this purpose. This was done to find a laboratory testing method which could be relied upon to predict the performance of a product. The results obtained from these tests showed rather close correlation with those found on floors in actual service; but this will need further research before definite conclusions can be reached.

Survey Results in Homes

FTER assembling the results of A the laboratory and floor studies it seemed desirable to learn more about individual floor care problems encountered by homemakers. During 1947, groups of homemakers were contacted and asked to record the types of floors in different rooms of their houses and give the maintenance methods followed in each case. They were also asked to report on their satisfaction or dissatisfaction with the floors; whether they planned to do any refinishing in the near future; and the type of floors they would prefer in case the present ones were not satisfactory. One important reason for collecting this data was to locate women who planned to refinish floors and to solicit their cooperation in keeping records of the time and labor involved. When the floor was refinished and again in use the homemaker was asked to give a statement of her reaction to the floor. Each homemaker proceeded with the refinishing as she preferred and no advice was given unless it was sought. A large number of the women knew exactly what they wanted and relatively few asked for advice.

Two hundred and forty-six Rhode Island homemakers reported on the floors in 900 rooms. Most women knew the composition of the floor material but relatively few were able to give full information about the floor finish material. A little more than onethird of the floors had either inlaid or print linoleum. Another third were pine and less than a third were of such hardwoods as oak or maple. Ninetyeight per cent of the kitchens had linoleum covered floors while 27 per cent of the bedrooms, 17 per cent of the dining rooms and 10 per cent of the living rooms had this type of floor covering. Ninety per cent of the living rooms had finished wood floors about half of which were pine and half hardwood. Floors in dining rooms and bedrooms followed approximately the same distribution between pine and hardwood floors.

Floor Cleaning Methods

THREE different cleaning meth-ods were used for all types of floors; the first consisted of dry mopping and an occasional supplementary cleaning with a damp cloth or liquid cleaner. This was used most frequently on maple floors, but also was used on pine and oak floors. The second method employed the use of warm water and mild soap, a method used on linoleum floors by four-fifths of the women, and by about one-half on pine; relatively few used soap and water on hardwood floors. The third method included a thorough washing with warm or hot water combined with soap and frequently the addition of an abrasive cleaner. Although this method was found in use on all types of floors, it was not used as extensively as the other two.

In addition to cleaning, about nine-tenths of the women used some form of wax. Fluid wax was most frequently employed and this was generally of the self-polishing, water-emulsion type. Paste wax was used in very few cases and almost entirely on maple floors.

Nearly one-half of the homemakers having pine floors expressed some degree of dissatisfaction and, of these, more than one-half would like to replace the pine with hardwood, while about one-fourth would like floors covered with linoleum. The remainder indicated they preferred to keep the pine floor if a more satisfactory finish could be found.

Homemakers with oak or maple floors expressed a high degree of satisfaction. Only about one-third were not satisfied and of this number at least three-fourths merely disliked the present finish.

One hundred and sixteen homemakers said they planned to refinish one or more floors within a year. From this group were selected the homemakers who expected to do all of their own refinishing work or with family



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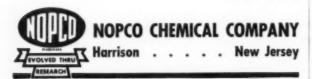
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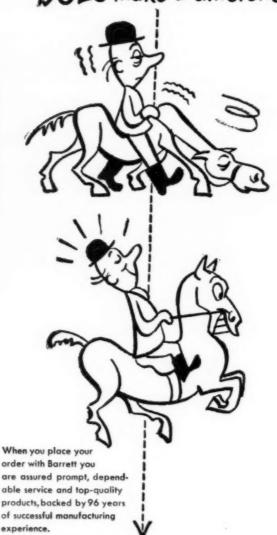
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assistance but did not expect to employ any professional or skilled workmen. These women were asked to cooperate in the second phase of the study. Forty-eight homemakers were willing to keep the necessary records and these women refinished 131 floors, 61 of which were pine and 70 were oak. Three types of finish material were used on the floors: shellac, varnish and penetrating seal. More than onehalf the floors or 55 per cent were refinished with shellac, 27 per cent with penetrating seal and 18 per cent with varnish. Most of the floors were refinished with the same type of material as the original finish had been, although it would have been possible to use any type finish desired as nearly all of the floors had been freshly sanded before the finish was applied.

One important item to consider in households where all rooms are in constant use is the amount of time a floor will be out of use during the refinishing period. Homemakers reported that varnished floors were out of service for the longest time, an average of 55 hours, shellac required an average of 41 hours and penetrating seal an average of 20 hours. This period applied to the finishing period only and did not include the time needed for preparing the surface. It applied also to only one coat of varnish or shellac but included two coats of penetrating seal. The seal appeared to take considerably less time for the homemakers to apply as they were able to cover an area of 100 square feet in an average of 181/2 minutes. Varnish required an average of an hour and 14 minutes to cover the same area and shellac an average of 52 minutes.

Soon after the floors were again in service the women were asked to evaluate their work. Three-fourths of those using either shellac or varnish were completely satisfied with their floors; but one-fourth were not so pleased with the results. The complaints were: (a) white or brown spots appeared in some areas and (b) the surface scratched or marred almost as soon as the floor was returned to service. All of the homemakers who used penetrating seal expressed complete satisfaction with the results. It might

be expected that women would evidence considerable satisfaction immediately after refinishing a floor, but it would be desirable to check on this point again after the floor had been in service for a year or two.

Floor Finish Materials Rated

I N THE various studies certain problems appeared frequently. These were chiefly in two categories, those directly related to finishes and those pertaining to maintenance materials. Homemakers have complained repeatedly that many floor finishes scratch and mar too easily and that traffic lanes soon appear which disfigure the entire floor. They feel also that many finishes are too difficult to repair without refinishing the whole area. This is time consuming and expensive to repeat as often as now seems necessary. Women have not yet found fully satisfactory maintenance methods. They want a clean looking floor and one which can be kept so with reasonable effort. They are willing to use wax to protect and enhance the beauty of the floors but they would like a product which will not produce a slippery surface and one which can be removed without drastic treatment when this becomes necessary. Women also want suitable cleaning materials which will remove soil but will not become fire hazards in the household. Finally, homemakers want accurate information about the product given on the label with clear cut instructions about its use. Instructions on use and full facts about a product will greatly aid women in buying and using finish or cleaning materials. These are the outstanding problems homemakers in the foregoing studies have encountered and they are now looking to manufacturers for materials which can solve these problems.

Hard Water Soaps

(From Page 45)

of Ships had started investigations as early as 1938. It was found that the main stumbling block to the development of a synthetic detergent in bar form that would look and act like soap was the development of a suit-

able diluent and binding agent. Many materials were tested, but without success. It was not until the suggestion was made that ordinary soap might serve the purpose that the problem was solved. Moreover, notes Sunde, this discovery had the additional advantage of permitting the use of soap making equipment.

At first it was thought that the soap would serve merely as a binder and contribute little in the way of detergency when used in hard waters. It was therefore quite surprising to find that the soap contributed its share to the cleaning effectiveness of the cake product (34). Of course a number of workers have tried to explain the mode of action of these combinations. However, as remarked by Van Zile and Borglin (6), whatever the mechanism, the fact remains that the combination of soap and synthetic detergent works better than either one alone.

Army Bar Detergent

As was reported by Simpson (35), it became the task of the Quartermaster Corps to develop an all-purpose detergent for the Army. Tentative specifications were set up covering both framed and milled type bars. With these standards as a guide certain objectives were determined, as follows: (a) to limit the soap content to two parts of soap for one part of active synthetic detergent ingredient; (b) to use a short chain detergent (as part of the total detergent) for increasing foam; and, (c) to use 10 to 30 per cent of coconut oil in the stock.

As explained by Vaughn and his associates (7), this "all-purpose soap," composed of tallow-coconut oil stock and synthetic detergent, satisfied the requirements for a high grade toilet soap because it contained no free alkali, abrasives, highly alkaline salts, or other objectionable materials. Moreover, it could be used in soft, hard, and sea water, thus giving performance far beyond that of any commercial product then available.

The Navy also set about developing a product to meet its own requirements (34, 36). Specifications



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for such a product, providing standards of both composition and performance, were made available in the Interim Specification 51D7 (INT) for Detergent; Salt-Water, Bar Form (37). This called for a uniform mixture of substantially equal parts of a synthetic detergent and a well-made, boiled, settled kettle soap.

Subsequently a number of similar combinations, as well as improved methods for making the cakes or bars, were developed both in this country and abroad (38-41). Some interesting examples of improved compositions of this sort are given in one of Flett's (42) patents. Such soap compositions, suitable for use in hard water, sea water, and acid aqueous solutions, consist of a water-soluble soap and a mixture of alkyl derivatives of an aromatic sulfonate. The combinations may be made into bars and cakes that will not crumble in equipment ordinarily used in making milled soap.

Improvements in the manufacturing of hard and salt water soaps are given in Hoyt's (43) patent. Through the use of starch to overcome the stickiness and toughness of the components, he obtains a superior milled soap which also has a satiny feel. In this process, the starch is mixed with soap and a higher petryl sulfonate.

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Livestock Insecticides

(From Page 135)

on the health of the animals. After completion of the experiments the treated groups averaged weight gains equal to untreated animals. Analyses 2 weeks after the last spraying showed the following amounts of organic chlorine present in the fat of animals

receiving the different treatments: Toxaphene-kerosene emulsion 8 p.p.m., toxaphene-xylene emulsion 11 p.p.m., chlordane 17 p.p.m., benzene hexachloride 26 p.p.m. Six weeks after the last treatment the results were as follows: Toxaphene-xylene emulsion 8 p.p.m., toxaphene-kerosene emulsion 2 p.p.m., chlordane 6 p.p.m., benzene hexachloride 11 p.p.m. Four untreated animals in this experiment averaged 2 to 3 p.pm. of organic chlorine, but the average in another lot of 36 steers before application of insecticides was approximately 5 p.p.m., with a range of 0 to 12 p.p.m.

Three steers were thoroughly treated once with xylene-emulsion spray containing 0.5 per cent of chlordane. Two weeks later biopsy fat samples showed no increase in organic chlorine over that of the samples taken from the same animals 2 days prior to treatment.

Further tests and field observations have been made on the acute toxicity of insecticides applied to livestock. It is apparent that DDT, TDE, and methoxychlor create no acute toxicity hazard. Calves show no harmful effects when treated with wettablepowder sprays containing as much as 16 times the concentration normally used in livestock-pest control. However, there is a much greater danger from the use of toxaphene, lindane, or chlordane. At the December 1949 meeting of the American Association of Economic Entomologists R. D. Radeleff and R. C. Bushland, of the Kerrville laboratory, presented data showing that some young Jersey calves may show toxic symptoms or die when thoroughly sprayed with 1.0 per cent of toxaphene or chlordane, or benzene hexachloride containing 0.05 per cent of the gamma isomer. These concentrations are only about twice that required for controlling certain external parasites of cattle.

Recent investigations indicate that Hereford calves may be more resistant to lindane than Jerseys. Scattered reports have been received of losses among cattle due to lindane or benzene hexachloride or combinations of these insecticides with DDT, although lindane has been employed ex-



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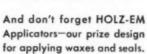
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tensively in New York State as a control for mange on dairy cattle, including calves, at 0.046-per cent concentration without reported losses of animals.

Losses among cattle due to toxaphene poisoning were reported during 1948. However, improved formulations of this insecticide have been employed extensively as sprays in certain areas during 1949 without known cases of poisoning among livestock. Toxaphene has also been used experimentally as a dip in Florida and in Texas in tick control experiments. A few losses among calves were reported in Florida.

It appears that sprays containing toxaphene and lindane can be employed for livestock-pest control without causing loss of animals provided they are carefully formulated and mixed. Before these materials can be used safely as dips, however, it will be necessary to develop suitable formulations which will remain stable under the adverse conditions frequently encountered in such use; also a simple vat-side test to determine with reasonable accuracy the concentration of insecticide in the dip. These problems are under investigation by the Bureau of Entomology and Plant Quarantine in cooperation with certain commercial concerns.

New Recommendations

THE Bureau has made several important observed tions for the use of DDT and other insecticides for the control of livestock pests during the past year. These changes were made because of the occurrence of residues in milk and because of the development of insecticide-resistant house flies. Recommendations which have been or will be issued in greater detail in the near future are outlined below.

Lindane is recommended for use as a residual spray for fly control in dairy barns and milk plants on the farm. A special statement relative to its use for this purpose was issued o-July 12, 1949, entitled "An Additional Residual Insecticide for Fly Control in Dairy Barns." However, this statement recommended that lindane not be applied to dairy cows. Since the

issuance of that statement specific formulations of lindane have been approved for registration as a veterinary drug for use on dairy cows for mange control.

Investigations by the New York Agricultural Experiment Station, the U.S. Bureau of Animal Industry, and other agencies have shown that lindane is an effective and much needed control for mange on dairy cattle. The Bureau of Entomology and Plant Quarantine is now recommending the use of lindane at a maximum concentration of 0.03 per cent for louse control on dairy cows, since control of these pests will require only one or two treatments a year. It is recommended as a spray for the control of other pests on livestock other than dairy animals, especially for the control of ticks, lice, and sheep ticks.

Repeated applications of toxaphene as a 0.5-per cent spray on cattle do not cause appreciable storage of the insecticide in tissues, and have no toxic effect on livestock, including calves. Toxaphene is therefore being recommended as a spray on livestock other than dairy animals, particularly for the control of lice, ticks, horn flies, and sheep ticks. Details regarding the use of toxaphene for these purposes will be given in special publications.

The use of lindane and toxaphene insecticides is recommended after a careful consideration of available toxicological data. The decisions were reached after consulting with representatives of other governmental agencies. The recommended extension of the use of these materials shows that definite progress is being made in developing the new insecticides for practical control of livestock pests. Further studies are under way to obtain further information on these and other insecticides and to determine if and for what purposes they might be used safely against livestock pests.

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Merchandising . . .

(From Page 41)

not only something of value for their customers, but to draft our plans, and our objectives, in such a way as to do something of real value for them as well as for ourselves.

We face an entirely different approach to merchandising than has existed before. Our lush selling days are over. New ideas, new methods, new skills are making the competitive struggle fiercer than ever. It is the beginning of an entirely new selling era. "Creative selling" has never been as important as it is now. A well-designed and useful product is no longer enough. Buyers now want to know how fast it will sell-and how much is the profit. Resourceful merchandising will furnish the answers, inventing new techniques when necessary, to move the goods the salesman sells. To say the least-salesmen trained to hustle will find their hustling more effective when they sell goods into a store with a merchandising plan that moves goods out.

There is one simple truth about merchandising that can alert us all to its opportunities, particularly now as we enter an era when more and more grocers are returning to the unfortunate and destructive practice of loss leaders. There is one way-and one way only-by which a store can increase its volume, and hence its profits, without cutting prices. That one way is through thorough and sustained merchandising.

Competition for sales dollars is growing keener every day. Grocery margins in 1949 were the lowest in history. 1950 is going to be a year marked by a fierce battle for volume. Looking into an uncertain future, no one in advertising and selling can afford to underestimate the sales power of merchandising. Advertising without merchandising is like Damon without Pythias, Amos without Andy. Together, they form a team of championship caliber for any sales league.

No news is NOT good news if... you haven't heard about **GEIGY'S** METHOXYCHLOR "90"

* Expressly for Aerosol and Household Sprays

· A relatively fine, flaky formulation containing 90% METHOXYCHLOR

- · Safe-but-Sure
- · Readily soluble in solvents and oils

and other METHOXYCHLOR products

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ORIGINATORS OF

Geigy Company, Inc. 89 Barclay St. New York 8, N. Y. Available Upon Request

SHELLAC

Agents in Principal Cities

Danbury, Conn.-Denis E. Durkin Boston, Mass.-W. D. Hodges Company Philadelphia, Pa .- A. C. Hurlbrink Cincinnati, Ohio-C. M. Durbin Ca. Cleveland, Ohio-J. H. Hinz Company Chicago, Ill.-Harry Holland & Son, Inc. Burbank, Calif.-H. C. Ross San Francisco, Calif.-E. M. Walls Co. Havana, Cuba-J. A. Castre San Juan, Puerte Rico-Emmet Nicelai Canada-H. J. McAdie Co., Ltd.

Samples and Formulations will be furnished on request.

BONE DRY BLEACHED **#65 REFINED EXTRA WHITE** # 67 SEMI-REFINED

Particularly recommended in aqueous solution - because

- . LOWER ACID NO.
- REQUIRING LESS ALKALI
- . GIVING HIGHER LUSTRE
- . GREATER DURABILITY
- . GREATER FLEXIBILITY
- MORE WATER RESISTANCE

ORANGE SHELLACS - ALL GRADES

MANTROSE THE CORPORATION

Importers—Bleachers—Manufacturers 136-146 FORTY-FIRST STREET BROOKLYN 32, N. Y.

TRADE

Varley Adds to Plant

The construction of a new packaging plant and warehouse on their premises at 1200 Switzer Ave., was announced recently by James Varley & Sons, St. Louis. The new building is to be 120 feet square, and provides the firm with an additional quarter million cubic feet of storage space. The new, modern concrete structure is being equipped with the latest type of packaging equipment, to handle containers ranging in size from five gallon drums down to eight onnce bottles. The building was expected to be completed late in May.

ECA to Buy Pesticides

Authorization to purchase \$50,000 worth of pesticides for Italy from Marshall Plan Funds was granted early in May by the E.C.A. Final delivery date is Oct. 31. Contract period extends until Aug. 31.

New Sanitary Products Firm

Crawford Industries, Inc., Oil City, Penna., has been established to manufacture and distribute sanitary chemical specialty products, according to an announcement by William S. Perry, president. The new company has acquired a concrete building with 35,000 square feet of floor space in Oil City. The plant is situated on a four acre plot with railroad siding. A series of three, five and ten thousand gallon tanks are now being installed to give a total tank capacity of 250,000 gallons. Mr. Perry is also associated with the Emlenton Resins Co. of Oil City.

Talks on Floor Wax Use

Maurice Moore, buyer of drugs and chemicals for the New York City Department of Purchase, spoke before the Floor Wax and Polishes Division of the New York Paint, Varnish and Lacquer Association at a recent meeting at the Hotel Martinique, New York. The city purchased 36,000 gallons of floor wax last year, he said,



The appointment of E. P. Gilsdorf (above), manager of E. P. Gilsdorf & Co., janitor supply and paper company of San Francisco, as west coast representative of Baird & McGuire, Inc., Holbrook, Mass., was announced recently by Gordon M. Baird, president. The Gilsdorf company is located at 246 Ritch Street.

and this figure will probably reach 43,000 gallons by 1952. Present specifications for the purchase of floor wax by the city were adopted in 1939, Mr. Moore said, and are currently being brought up to date.

Reverses Aerosol Ruling

A reversal of a lower court's decision in its action charging Bostwick Laboratories, Inc., and Connecticut Chemical Research Corp., Bridgeport, Conn., with infringement of two of its aerosol patents was won recently by Bridgeport Brass Co. The reversal was handed down by the United States Court of Appeals for the Second Circuit, holding that the recent decision of the District Court in favor of Bostwick and Connecticut Chemical Research Corp. was erroneous. The case has been referred back to the District Court for further proceedings.

Bridgeport is now in a position to press its original action for damages against Bostwick and Connecticut Chemical for alleged infringement of its patents No. 1,892,750 for "Method and Apparatus for Atomizing Materials" and No. 1,945,998 for "Coating Compositions." These patents cover inventions of Eric Rotheim,

a Norwegian, who was a pioneer in the aerosol field. The patents were purchased several years ago by Bridgeport Brass Co. so that the inventions could be incorporated in its products.

Goldsmith in New Post

Gerald E. Goldsmith was recently appointed general manager of Snap Co., Ltd., and of Airkem Sales and Service (Canada), a division of Combined Enterprises, Ltd. He was formerly sales manager of Snap Company.

III. PCO's May Advertise

The Illinois Pest Control Association is studying a proposal for an institutional advertising campaign in downstate Illinois cities. At the May meeting a report on the plan was to be made by a committee appointed by Harold Jennings of the Smithereen Co., who is president of both the Illinois state group and the National Pest Control Association.

Brandt Joins Warwick

Alfred Brandt has joined the sales staff of Warwick Chemical Co., Division of Sun Chemical Corp., L. I. City, N. Y., and will represent them as a technical representative in Central America, Mexico, Colombia and Venezuela.

House Pesticide Study

A resolution calling for an investigation of adulteration of dairy, meat and food products by new chemicals and chemical processes, including insecticides, was voted May 11 by the Rules Committee of the U. S. House of Representatives. The resolution, which was sponsored by Adolph J. Sabath, of Illinois, chairman of the Rules Committee, now goes to the House for consideration. It requires no Senate action. Under provisions of the resolution a seven man committee would make the investigation. It would study whether the growing use of chemicals, compounds and synthetics in the processing of food is safe. Under present law, the resolution points out, there is no requirement that producers using such products demonstrate in

Hopkins Moves to Brooklyn

J. L. Hopkins & Co., New York, transferred its headquarters offices June 1 to 477 Keap St., Brooklyn, site of its plant, research laboratories and warehouse since its establishment in 1890. Sales and administrative staff are located in enlarged and modernized offices at the Brooklyn location.

Court Denies Hyman Writ

The United States Supreme Court recently denied a writ of certiorari to Julius Hyman, head of Julius Hyman & Co., Denver. He was appealing for a Court of Appeals review of a Supreme Court of Illinois decision against him in his case with Velsicol Corp., Chicago.

Earlier a Federal District Court in Denver ordered the Hyman company to pay \$1,723,180 to Velsicol.

Kerrigan Merck President

James J. Kerrigan, a director and vice-president of the company since 1927 was recently elected president of Merck & Co., Rahway, N. J. He succeeds George W. Merck, who continues as chairman of the board. Henry W. Johnstone was elected senior vice-president.

Mr. Kerrigan joined Merck in 1907, and spent much of his time in commercial phases of the company's operations. He is also a director and vice-president of Merck & Co., Ltd.

Mr. Merck, son of the company's founder, George Merck, joined the firm in 1914 and has been president since 1925.

The new senior vice-president has been with Merck since 1930. He became plant manager the following year, and vice-president in charge of operations in 1936. He is a director of Merck & Co., Inc., and Merck & Co., Ltd.

Federal Floor Care Booklet

A new, 48-page booklet in color, entitled "What to Use on Floors . . . And How to Use It" was issued recently by Federal Varnish Division, Chicago. In addition to showing types of floor preparation and maintenance equipment, the manual describes and defines important floor care terms. It discusses in detail and illustrates types of floor maintenance and the materials used in these operations. There are complete sections for types of floor surfaces and floor covering materials, with instructions on maintenance and upkeep of each. In addition to a two-page section devoted to "coverage tables," there is a subject index.

Dr. Demont Joins Fleuroma

Fleuroma, Inc., New York, producers of perfume oils and basic aromatic specialties, recently announced the appointment of Dr. Michel Demont as chief chemist of their recently acquired chemical laboratories, formerly Demond Laboratories, Inc. They will continue to be operated at 155 Waverly Place, New York, as a division of Fleuroma, Inc.

Dr. Demont is a graduate of both La Sorbonne and the University of Caen, Paris. He will work with Walter Lengsfelder, president and perfumer of Fleuroma. Operations of the new laboratories have been completely integrated with the current activities of the company, according to Emanuel Poons, general manager. Rupert C. Watson continues to direct the sales department.

Steadman Oronite Distrib'tr

F. W. Steadman, 59 Pearl Street, New York, announced recently that they have been appointed as distributors by Oronite Chemical Co., San Francisco, for "D-40" and "D-60" detergents. "D-40" is a new detergent that comes in flake, granular and powder forms.

Wax Spec. Changes

Elimination of most of the controversial requirements of the tentative specification 784a, covering water emulsion type floor wax, characterizes the approved version issued recently by the General Services Administration, Washington, D. C. In the approved form, 784a, which supersedes 784, eliminates all reference in the general requirements to wax content, softening point, penetration, ash content, sulfonated nonsiliceous ash and siliceous ash. The slipperiness test still is on the controversial side, and 3.21 of the older specification giving limits has been deleted in favor of a requirement that waxes must have the approval of the Underwriters' Laboratories.

New requirements include: 3.5 "Free caustic alkali.—No free caustic alkali may be present"; 3.12 "Adhesion.—A metal disc shall fall free at not more than 35° when tested as specified in 4.2.12." There is also a new method of determining tackiness.

New special combination "Vasposector-Mistomizer" offer announced recently by West Disinfecting Co., Long Island City, N. Y. Featured is a 25-ounce AC-DC electric "Mistorizer sprayer, adaptable to either area-fogging or direct-contact use. It is supplied with five gallons of West's "Vaposector" insecticide at a combined introductory price of \$59.50.



advance that they are non toxic. The committee also would investigate whether new insecticides are being used under safe conditions.

Currently and for the past several months hearings of toxic residues on foodstuffs are being conducted by the Food and Drug Administration.

Penn Salt Profit Up

Pennsylvania Salt Manufacturing Co., Philadelphia, increased its net profit to \$941,116, worth \$1.18 a common share in the first quarter of 1950, from \$589,309, equal to 72 cents a share, in the first three months of 1949.

Sears Sells Preservative

The availability of its pentachlorophenol in a one to 10 concentrate as a wood preservative and termite repellent for home and industrial use was announced recently by Monsanto Chemical Co., St. Louis. Sears, Roebuck and Co., Chicago, is the first national distributor to merchandise the wood preserver formulation. Sears is offering the preparation through its new mid-season spring catalog and 640 retail stores. It will be distributed under the brand name, "Master-Mixed," and will be available for home use in one-quart and five gallon containers, as well as in drums for industrial use.

New Detergent-Sanitizer

The introduction of two new liquid detergent sanitizer concentrates for control of fungi and bacteria in carpets, rugs, upholstery and on floors was announced recently by Piatt & Smillie Chemicals, Inc., St. Louis. Designed to combine cleaning and sanitization in one operation, the products are trade marked "First," a rug and upholstery shampoo, and "First for Floors." Both products contain balanced amounts of wetting agents and synthetic detergents compatible with the germicide, which is manufactured by Monsanto Chemical Co., St. Louis. The products loosen dirt and carry it away in suspension. The new concentrates are designed for maximum effectiveness at "floor temperatures," according to the announce-

Incorporates in New York

Articles of incorporation for Scientific Sanitation Services, Inc., were filed recently with the office of secretary of state, Albany, N. Y. Capital stock was listed at \$20,000. Directors of the concern include Jacob B. Gersten, Annette Serebrenick and Emanuel Weintraub all of New York.

Sterwin Expands Branches

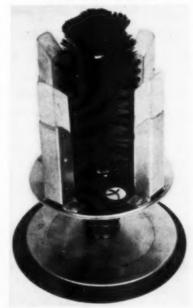
The expansion of its facilities in four regional offices to include banking and accounting was announced recently by P. Val Kolb, president of Sterwin Chemicals, Inc., New York. The offices, which also handle warehousing, shipping and billing, are located at 152 Peters St., S.W., Atlanta; 445 Lake Shore Drive, Chicago; 2615 W. Mockingbird Lane, Dallas, Tex.; and 348 9th St., San Francisco.

Branch offices of Sterling Drug, Inc., parent company, are located at the same addresses and Sterling managers are in charge of Sterwin facilities. They include: E. A. McCullough, Atlanta; E. P. Gibney, Chicago; M. T. Bowman, Dallas and C. R. Danielson, San Francisco.

To Study Grain Damage

The formation of a departmental coordinating committee to deal with insect pest damage to stored

> New glass washing brush made by Pollock Corp., Dayton, O.



grain was announced recently by the Secretary of Agriculture. The group will consider methods of prevention and control. Serving on the committee, announced after consultation with the Fish and Wildlife Service of the Department of the Interior, the Food and Drug Administration of the Federal Security Agency and U.S.D.A., are: C. M. Packard of the Bureau of Entomology and Plant Quarantine, chairman; M. P. Jones, extension service, and A. F. Nelson, grain branch of the Production and Marketing Administration, U.S.D.A. Mild winters during the past two years and the large amount of grain in storage have contributed to the increased amount of damage from pests to stored grains.

Dr. L. O. Howard is Dead

Dr. Leland O. Howard, 92, chief of the Bureau of Entomology of the United States Department of Agriculture from 1894 until 1927, who retired from the U.S.D.A. in 1931, died May 1, at his home in Bronxville, N. Y. The author of several books, he achieved his greatest fame for his book, "The Insect Menace," published in 1931, which won the Second Capper Award. Other works include: "Mosquitoes-How They Live" (1901); "The Insect Book" (1901); "The House Fly-Disease Carrier" (1911); "The History of Applied Entomology" (1930), a work done for the Smithsonian Institute, and "Fighting the Insects-The Story of An Entomologist" (1933). Dr. Howard was also the author of a monograph for Carnegie Institute called "Mosquitoes of North America."

Starting in 1878 as assistant entomologist of the Bureau of Entomology of the U.S.D.A., and becoming chief in 1894, Dr. Howard was a principal entomologist of the Agriculture Department from 1927 until 1931.

He had been honorary curator of the insect department of the U. S. Natural History Museum since 1895 and consulting entomologist to the U. S. Public Health Service in 1904. For the Health Service Reserve he was also senior entomologist, with the grade of senior surgeon.



RENTOX PEST-TESTED

Basic Insecticide Concentrates

CHLORDANE

Oil Concentrates Wettable and Dry Powders Emulsifiable Concentrates

ROTENONE

Derris and Cube Powdered Concentrates

DDT

Wettable and Dry Powders
Oil Concentrates
Emulsifiable Concentrates

SABADILLA

Ground Seed
Dust Concentrates

RHC

Wettable Powders
Dust Concentrates

RED SQUILL

Fortified Powder Fortified Liquid

TOXAPHENE

Wettable Powders
Dust Concentrates
Emulsifiable Concentrates

PYRETHRUM

Powder No. 20 Extract

RAX POWDER

A new Rodenticide containing Wisconsin Alumni Research Foundation Compound 42

R. J. PRENTISS & CO., INC.

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Announcing

SURESUDS*

The All-Purpose Super-Detergent

CLEANS FASTER, BETTER, BRIGHTER

- Abundant, Long-Lasting Suds Very Mild Kind to Hands, Fabrics, Finishes.
 - No Hard Water Scums No Water Too Hard for SURESUDS.
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Recommended for:

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LAUNDERING — HOME, LAUNDERETTE, INSTITUTIONAL; FINE FABRICS, GREASY OVER-ALLS, ETC.

DISHWASHING — GLASSES, SILVERWARE, POTS AND PANS.

ALSO — DAIRY AND FARM EQUIPMENT, PAINTED SURFACES, ETC.

* REG. U. S. PAT. OFF. APPLIED FOR

National Milling & Chemical Company

Industrial Soap Products Since 1896

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LaCasse to Penn Salt

Harold J. LaCasse recently joined the special chemicals department of Pennsylvania Salt Manufacturing Co., Philadelphia. He is covering the Indiana territory, formerly handled by John C. Hampson, who was recently appointed sales manager of the department's newly formed Chicago district.

Incorporate Shiell Process

Shiell Process Corp. has been incorporated with capital stock of \$20,000 to manufacture polishes, floor finishes, etc. Directors include Theodore W. Adler, 2 Garden Rd., Scarsdale, N. Y., John W. Herz, 42 Glenn Rd., Larchmont, and K. A. Slocum, 84 St. James Plaza, Brooklyn.

New Gold Seal Bleach

Gold Seal Co., Bismarck, N. D., recently announced the addition of "Snowy Bleach," a new powdered bleach to its line of cleansers and polishes. Packaged in a 20 ounce carton, with a suggested retail price of 49 cents, the new bleach, said to have a pleasant odor, is claimed safe for use on silk, nylon, rayon and wool fabrics.

Introduction of the new bleach is taking place in Chicago, where newspaper, radio and television advertisements are being used. The product is being sold through grocery stores and similar retail outlets.

Gold Seal Co. also handles "Glass Wax," "Wood Cream" and "Gold Seal Self-Polishing Floor Wax."

Clay Heads Cont. Can

General Lucius D. Clay, formerly commander of U. S. forces in Europe and military governor of the U. S. Zone was elected chairman of the board and chief executive officer of Continental Can Co., at a meeting held in New York recently. He replaces Carle C. Conway who has resigned after having served as chairman since 1930. Mr. Conway continues as a member of the board and is serving as chairman of the executive committee. He has been a director of the company for 37 years, during

which time he also served as vicepresident.

General Clay, a native of Marietta, Ga., received his B.S. degree from the United States Military Academy in 1918. At one time he was in charge of construction of the Red River Dam at Denison, Tex., and later took charge of the defense airport program of the C.A.A. During the war he was assistant chief of staff for Material Service of Supply in charge of Army Production; and was appointed deputy to Director James F. Byrnes for war programs in 1944. He became deputy to General Eisenhower in 1945, and was elected to commander of U. S. forces in Europe, and military governor of the U.S. Zone in 1947.

Salesmen's Golf Outing

The first golf outing of the 1950 season of the Salesmen's Association of the American Chemical Industry was held June 6, at Nassau Country Club, Glen Cove, L. I. The July outing will be held on Tuesday, July 11, at Bonnie Briar Country Club, Larchmont, N. Y.

A Fite Nite was held by the S.A.A.C.I. at the Downtown Athletic Club, New York, the evening of May 23.

New "Dura-Sorb" wet mop of American Standard Mfg. Co., Chicago, featuring spun cellulose.



Empire Brush Exhibits

Empire Brush Works, Inc., Port Chester, N. Y., exhibited its line of personal brushes, household and maintenances brushes at the 17th annual National Premium Buyers Exposition in Chicago, Ill., recently. In charge were S. E. Zeintz, L. J. Klein and P. F. Gantz.

Lightfoot with Brockway

C. L. Lightfoot, formerly for many. years with Anchor Hocking Glass Corp., Lancaster, O., was recently engaged by Brockway Glass Co., Brockway, Pa., as a packaging consultant.

New "Dura-Sorb" Wet Mop

The introduction of a durable form of specially spun cellulose for its line of "Dura-Sorb" wet mops was announced recently by American Standard Manufacturing Co., Chicago. Mops featuring the new spun cellulose are claimed to be durable for rough as well as smooth floors. Laboratory tests conducted with the new yarn show that it has a high degree of water absorption, and dirt retention, according to the maker. Ease in cleaning, wringing out or rinsing under running water is also claimed for the new mop. It is said to dry fast and soft.

Sample strands of "Dura-Sorb" yarn are available on request. Simple tests to demonstrate the absorbency of the yarn are suggested. They include placing the test strand of yarn in water dropped on a desk or table surface. The fast disappearance of the water is proof of the high degree of absorbency of the yarn, the manufacturer states. Similarly, if a strand of the yarn is hung in a glass of water, with the opposite end overhanging the glass, water is said to siphon out a steady stream of drops.

"Dura-Sorb" comes in a variety of sizes. These wet mop heads fit any standard size mop holder. Samples of "Dura-Sorb" yarn, specifications, and price list are available from American Standard Mfg. Co., 25 S. Green St., Chicago 8. The firm also makes a complete line of wetmops, dust-mops and applicators.

FLOOR FINISHES

Send for this FREE BOOK

A BOOK EVERYONE WHO USES OR SELLS FLOOR FINISHES SHOULD HAVE



This book gives specific instructions and recommendations for treating and finishing the individual types of floors as well as giving correct methods of maintenance. It will enable you to do a better selling job—it will enable your customer to do a better job of floor finishing and maintenance. These books are so written that you can use them for your own brand and private label.

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Etrolite Crown EMULSIFIABLE WAXES FOR EMULSION POLISHES

Petrolite Microcrystalline Waxes possess many physical qualities which suit them particularly for the manufacture of emulsion polishes. The specifications below are for three Petrolite waxes which have proved themselves in the "dry-bright" polish field. Samples and complete technical data will be sent to you on request.

Crown Wax No.			Celor N.P.A.	Acid Number	Saponification Number	
23	180/185	6 max.	6 max.	20-25	55-65	
36	180/185	8 max.	8 max.	30-35	85-95	
1035	195/200	2 max.	2 ½ max.	Nil	Nil	

PETROLITE erown WAX

PETROLITE CORPORATION, LTD. WAX DIVISION

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REFINERY: BOX 390, KILGORE, TEXAS

I specify

Maas

Trisodium Phosphate



Maas Western production is delivered fresh from their local plant, assuring me of the highest quality with fast, dependable service.

Maas rates tops with me.



Telephone: Kimbali 2214

Three Join Tamms

The appointment of G. J. Boyer of Chicago and Walter Moser of Cincinnati to the sales organization of Tamms Industries, Inc., Chicago, was announced recently. Mr. Boyer is operating nationally as a sales representative in the polish, insecticide, sanitary supply, janitor supply and related fields. Mr. Moser will act as sales agent for Tamms in the Columbus, Dayton, Cincinnati and Louisville areas.

W. L. Russell was appointed recently by Tamms Industries, Inc., Chicago, as their representative in the New Orleans area.

Nopco Sells Subsidiaries

Nopco Chemical Co., Harrison, N. J., manufacturers of industrial chemicals, vitamin products and bulk pharmaceuticals announced recently sale of the packaged products business of two of its subsidiaries. White Laboratories, Inc., Newark, N. J. have acquired the subsidiary of Rare-Galen, Inc.; while Pharmaco, Inc., Newark, N. J., have bought the packaged products business of Admiracion Laboratories, Inc.

Spalding Res. Incorporates

Articles of incorporation for Spalding Research Laboratories—Eastern Distributors, Inc., were filed recently with the secretary of the state of New York, Albany. The firm is to manufacture chemical products, cleaning and exterminating preparations. L. Reyner Samet, Arthur H. Goldberg and Herbert R. Burris of New York, are listed as directors.

NACA Reviews Hearings

A review of the progress made to date in the Food and Drug Administration residual tolerance hearings, a discussion of new or pending state legislation affecting pesticides and a panel on the subject of public relations were the highlights of the annual spring business meeting of the National Agricultural Chemicals Association, held recently, at Haddon Hall Hotel, Atlantic City, N. J. Industry was

urged to show the same spirit of cooperation at the hearings that was manifested by government officials.

Cortilet Canco V. P.

M. P. Cortilet, manager of sales for American Can Company's

central division, recently was elected vice - president in charge of that division, succeeding G. H. Kellogg, who retired after 43 years of continuous service with the firm. Mr. Cortilet will



continue to make his headquarters in Chicago.

AACC Hears Guenther

Dr. Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., New York, was guest speaker at a meeting of the New York Section of the American Association of Cereal Chemists held in the Building Trades Employers' Association Auditorium, New York, recently. Dr. Guenther's talk was built around his color motion pictures featuring "Production of Essential Oils in the Western Hemisphere."

Snell Acquires Supplee

The purchase of G. C. Supplee Research Corp., Bainbridge, N. Y., by Foster D. Snell, Inc., New York, was announced recently.

Dr. Cornelia T. Snell, research Group Director of the company, spoke recently on "Evaluation of Synthetic Detergents" at the New York University School of Education.

Toxaphene Booklet

Current State and Federal recommendations on how to use and apply toxaphene insecticides have been summarized in an eight-page pamphlet by the Hercules Powder Co., Wilmington, Delaware. Concentration of insecticide, rate and method of application, and other comments with respect to use of the insecticide on a number of insects are listed.

PMMI To Meet Sept. 23-26

The Packaging Machinery Manufacturers Institute will hold its annual meeting at the Homestead, Hot Springs, Va., Sept. 23-26. Edwin H. Schmitz, Standard-Knapp, Portland, Conn., is chairman of the program committee.

Filtrol Address Change

Filtrol Corp. recently announced a change of address from 634 South Spring St. to 727 W. Seventh St., Los Angeles 17, Calif.

New Syntron N. Y. Office

The removal of its New York sales and engineering office from Long Island City to 1860 Broadway, New York 23, was announced recently by Syntron Co., Homer City, Pa., makers of vibratory feeders, weigh feeders, conveyors and related equipment. The telephone number of the new office is Judson 6-1507.

Richey in Malmstrom Post

Thomas B. Richey, Jr., formerly with E. I. du Pont de Nemours & Co., Wilmington, recently was appointed production manager of N. I. Malmstrom & Co., Brooklyn. He will have charge of a new plant now being erected to manufacture new chemicals from wool grease. Mr. Richey is a graduate of Columbia University, where he received a chem. engineering degree.

"Carbowax" Prices Cut

Price reductions of two cents per pound for the liquid polyethylene glycols and certain "Carbowax" compounds (solid polyethylene glycols) were announced recently by Carbide and Carbon Chemicals Division, Union Carbide and Carbon Corp., New York. The new prices are: Liquid polyethylene glycols 200, 300, 400, 600 in tank cars or compartment tank car lots, 23 cents per pound; "Carbowax" compounds 1500 and 1540 in carload or combination carload lots in 55 gallon drums, 29.5 cents per pound; "Carbowax" compound 4000 in carload or combination carload lots in 75-pound bags, 29 cents per pound. All prices are f.o.b. Charleston, W. Va.



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VACUUM FILLER

Fills directly from drum, pail or demijohn; no overhead tanks required. Suitable for bench or tray work; also fills containers in original shipping cartons.



FOR perfumes to nail polish meat sauces to silver polish

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FILLS vials to gallons; all cans including quarts.
Our many years of "Know-How" at your disposal in making special filling handles for every shape of container, every type of liquid.
Quick change-overs. Cleans itself automatically in 5 minutes.

OUTPUT about 50 to 150 gross daily.

ACTUALLY PAYS FOR ITSELF IN A FEW WEEKS!

SCIENTIFIC FILTER CO.

mfrs. Filters; Filling, Capping, Labeling Mchry.

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THE TERG-O-TOMETER



A device for:

- Simulation of home washers of the agitator type on a laboratory scale.
- 2. Evaluation of Detergency.
- 3. Fastness of colors to laundering.
- 4. Redeposition of Soil.

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A broad range of shades for Shampoos, Soaps, Drugs, Medicines, Creams, Rinses, and Cosmetics.

PYLA-SYNTH COLORS

Fast colors for the New Synthetic Detergents in Red, Blue, Green, Amber and Yellow.

- We offer a full line of fast colors for all soap and soap products.
- Send for free samples.
 Send for price lists.

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Baby Girl to Brunners

The birth of a baby girl, Nancy Ann, to the wife of L. E. Brunner, executive vice-president of Brulin & Co., Indianapolis, was announced recently.

Moves Milwaukee Office

W. H. Brady Co. recently announced the removal of its Milwaukee office from 808 N. Third St. to 204 W. Washington St.

Brenn Talks on Europe

J. L. Brenn, president of Huntington Laboratories, Huntington, Indiana, spoke March 16 before the Indiana University Society for the Advancement of Management. His topic was "A Businessman Looks at Europe."

Sanders Ninol Tech. Dir.

Herbert L. Sanders, formerly head of technical service of the central research laboratory of General Aniline & Film Corp., Easton, Pa., was recently appointed technical director of Ninol Laboratories, Chicago, where he is in charge of the company's expanded activities in the field of sur-

AMA Pesticides Committee

face active agents and fine organic chemicals.



JOHN N. CURLETT

Curlett is Re-elected

John N. Curlett of McCormick & Co., Baltimore, was re-elected president of the Flavoring Extract Manufacturers' Association at the annual meeting held at the Traymore Hotel in Atlantic City, N. J., recently.

Rex Floor Wax Folder

A folder on its "Rex-Glo" floor waxes was issued recently by Rex-Cleanwall Corp., Brazil, Ind.

The appointment of a committee on pesticides to study health problems associated with the use of insecticides, and other economic poisons was announced recently by the American Medical Association. The committee is operating in connection with the AMA's Council on Pharmacy and Chemistry. The purpose of the committee is to integrate the existing information on pesticides for the use of physicians and others. Objects of the committee according to the association's Journal, include: promotion of safe standards for use; the development of antidotal measures; the stimulation of voluntary control; the standardization of nomenclature; the accumulation and evaluation of new information; and the launching of an intensive educational program. The new committee is seeking the active cooperation and assistance of all branches of science and industry in achieving these ends, according to the announcement.

Members of the committee are: Herbert K. Abrams, M.D., Dept. of Health, Chief, Bureau of Adult Health, Berkeley, Calif.; E. M. K. Geiling, M.D., Professor of Pharmacology, University of Chicago; Albert Hartzell, Ph.D., Boyce Thompson Institute for Plant Research, Yonkers, N. Y.; Culver S. Ladd, B.Sc. Council on Foods and Nutrition, Silver Springs, Md.; Arnold J. Lehman, M.D., Food and Drug Administration, Federal Security Agency, Washington, D. C.; S. A. Rohwer, Assistant Chief, Bureau of Entomology & Plant Quarantine, U.S.D.A., Washington, D. C.; S. W. Simmons, Ph.D., Chief, Technical Development Services, Communicable Disease Center, U. S. Public Health Service, Savannah, Ga.; Justice C. Ward, Chief, Pharmacology and Rodenticide Section, Insecticide Division, U.S.D.A., Washington, D. C.; Torald Sollmann, M.D., Cleveland, and Bernhard E. Conley, R.Ph., Chicago, secretary of the committee.

Forms Caldwell Chem. Co.

John B. Caldwell, formerly vice-president and general manager of Merchants Chemical Co., New York, recently announced the formation of a new firm, Caldwell Chemical Co., with main offices at 220 E. 42nd St., New York, for the sales and distribution of industrial chemicals. A branch office has been set up at 2049 E. Grand Blvd., Detroit, with George L. Brown as manager.

Moore Cuts "Peer" Price

A 12 per cent reduction in the price of its "Peer" liquid soap dispenser was announced recently by Moore Brothers Co., New York.

W. F. Palmer is Dead

William Francis Palmer, 43, president of Palmer Chemicals, W. F. Palmer & Co. and Solex Disinfecting Co., died suddenly in Montreal, May 18. He was well known throughout Canada as a broker and trader in chemicals.

Polak Shifts Offices

The general and executive offices of Polak's Frutal Works, Long Island City, N. Y., were moved recently to Middletown, N. Y., where the plant is located. The essential oil company had been manufacturing on a small scale since 1937 in Long Island City.

Damage Award to Velsicol

Julius Hyman & Co., Denver, was ordered on May 11 to pay to Velsicol Corp., Chicago, \$1,723,180 in a suit which has been in litigation for two years. Judge William A. Black of the Federal District Court of Denver ordered Hyman to pay Velsicol as follows: Profits between March, 1947 and March, 1949, amounting to \$1,559,-060; damages of \$100,000; salaries of \$47,878 already received by Velsicol employees while on the Hyman payroll; a loan of \$15,124 made by Dr. Hyman from the concern's profits; dividends of \$1,118 on the Hyman stock received by certain employees.

The court also ordered the Hyman company to pay \$5,000 to an attorney for services as a special master appointed by the court.

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F. H. Leonhardt (right), president of Fritzsche Brothers, Inc., New York, with (l. to r.) technical director-v.p. Dr. Ernest Guenther, vice-president John H. Montgomery and recent gold medal-\$1000 Fritzsche Award winner, Dr. Arie Jan Haagen-Smit, at a dinner given in the latter's honor by Mr. Leonhardt. The Award is administered by the American Chemical Society and is given each year for "outstanding achievement in the field of essential oils and related chemicals." Other Fritzsche executives and technical department heads attended the dinner.

Boyle-Midway Names Magill

The appointment of Eugene P. Magill as eastern regional sales manager for Boyle-Midway, Inc., a division of American Home Products Corp., New York, was announced recently by Warren Tingdale, vice-president in charge of sales and advertising. Mr. Magill previously was assistant regional sales manager for the southwest.

Morrish Back from Geneva

Edward F. Morrish, technical director of the perfumery division of Firmenich & Co., New York, returned recently from a month's stay at the firm's offices in Geneva, Switzerland. Mr. Morrish made a comprehensive review of the newest technical developments at the firm's research laboratories in Geneva.

C. J. A. Fitzsimmons Dies

Charles J. A. Fitzsimmons, chairman of the board of directors of Orbis Products Corp., New York, died May 29 in New York Hospital after a week's illness. He was 71 years old. He founded Orbis Products in 1918, having previously been with Parke Davis & Co., Detroit, and manager of the drug and botanical department of National Aniline and Chemical Corp., New York. Mr. Fitzsimmons was born in Brooklyn and lived in New York. He is survived by his widow, Mrs. Josephine Smith Fitzsimmons; a son,

Charles S. Fitzsimmons of New York, and three daughters, Mrs. Robert L. Cahill, Mrs. William M. Meehan, both of New York, and Mrs. James G. Murray, Jr., of Pittsburgh. Mr. Fitzsimmons was a director of Corroon & Reynolds, Inc., New York Insurance Co., and Lafayette National Bank of Brooklyn. He was formerly for 25 years president of the Laymen's League of Retreats of the Archdiocese of New York, and was a member of the Cardinal's Committee of the Laity.

T. G. A. Meets

(From Page 48)

this year, according to Mr. Browne.

The concluding feature of the second day's session was a closed meeting of manufacturers, the afternoon of May 17.

The Scientific Section of the Toilet Goods Association held an all day meeting on May 18. Papers presented included "Solid Fatty Acids in Cosmetics" by W. L. Griffin and Phyllis J. Carter of Atlas Powder Co., Wilmington; and "The Development of Olfactory Preference" by Dean Foster of Joseph E. Seagram & Sons, Inc., Louisville, Ky.

The Fragrance Foundation, meeting the morning of May 18, at the Waldorf-Astoria elected Oscar Kolin of Helena Rubinstein, Inc., New York, as president to succeed J. S.

Wiedhopf, head of Parfums Ciro, New York. A. L. van Ameringen of van Ameringen-Haebler, Inc., New York, was reelected secretary.

Cos. Chemists Meet

More than 250 members and guests attended the semi-annual technical meeting of the Society of Cosmetic Chemists, held May 19th at the Savoy Plaza, New York. Of particular interest was the announcement of the election of Austin Smith, editor-inchief of the Journal of the American Medical Association, to honorary membership in the society. Dr. H. Behrman, N. Y. College of Medicine, presented the award address at the group luncheon.

In his report on "Solubilization in Theory and in Practice," Dr. J. M. Lambert, General Aniline and Film Corp., Easton, Pa., pointed out that the solubility of substances which are only sparingly soluble in water or non-aqueous solvents is increased greatly by the addition of appropriate surface active agents. Research on this subject has been directed toward the investigation of the colloidal structure of soap and detergent solutions and the correlation of critical concentration of micelle formation and the micellar structure of the colloidal solutions

Antiperspirants were discussed in two reports. One, "Experimenta Studies of Antiperspirant Action" was presented by Dr. J. A. Killian, Killian Research Labs., New York; and thother, a report by Dr. E. L. Richardson, and Dr. B. V. Meigs, Colgate-Palmolive-Peet Co., Jersey City, N. J. dealt with "A Method for Comparative Evaluation of Antiperspirants."

Other papers presented were: "Carragheenin and Carragheenates" by Dr. V. C. Le Gloahec, Algin Corp. of America, New York; "The Production and Prevention of Dental Caries in the Syrian Hamster" by Dr. J. F. Volker, Univ. of Alabama; and "Chemical Classification of Keratins" by Dr. R. J. Block, New York Medical College. The report on "A New Method to Manufacture Cetyl Alcohol" by Dr. O. N. Jitkow, Verley Chemical Co., was not presented.

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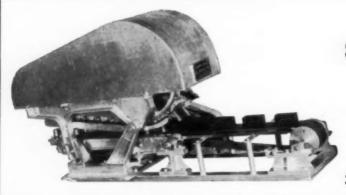
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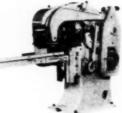


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For Sale: Allbright - Nell 4'x9' chilling rolls. Lehmann 4 roll W. C. 12"x36" steel mill. Houchin 8½"x16" 3 roll & 18"x30" 4 roll Granite Stone Mills. Anderson No. 1 Expellers. Jack. kettles & tanks, iron, copper, alum., stainless. Dry-ers vac & atmos. Jones automatic soap presses. Soap frames. Automatic soap chip dryer. Slabbers & cutting tables hand & power. Crutchers. Blanchard #14 soap powder mill. 6 knife chipper. Foot presses. Filter presses 12" to 42". Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines. Grinders. Hammer mills. Mikro pulverizers. Colloid mills. Three roll steel mills, 3"x9", 9"x32", 12"x30" & 16"x40". Portable elec. agitators, pumps, etc. Send for bulletin. We buy your sur-plus equipment. Stein Equipment Co., 90 West St., N. Y. 6, N. Y. WOrth 2-5745.

Allethrin Generic Name

The adoption of "allethrin" as a generic term for the substantially pure insecticidal chemical di-2-allyl-4-hydroxy-3-methyl-2-cyclopentone-1-one esterified with a mixture of cis and trans di-chrysanthemum monocarboxylic acid was announced recently by S. A. Rohwer, chairman of the Interdepartmental Committee on Pest Control, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture. The chemical has also been referred to by the less exact phrase "allyl hemolog of cinerin I," and as "synthetic pyrethrum."

Asphalt Tile Specifications

The issuance of two new specifications covering soap type cleaners and sweeping compounds was announced recently by the Asphalt Tile Institute, following its recent meeting at Seaview Country Club, Absecon, N. J. At the same time, it was announced that the technical research committee of the Institute is continuing its cooperative research work on the development of recommended specifications and methods of test for suitable maintenance materials for use on asphalt tile materials. The specification for water emulsion wax issued last year was brought up to date, and single copies may be obtained from the offices of the Institute at 101 Park Ave., New York 17,

Work on non-soap type cleaners and synthetic detergents is in progress, and it is hoped that definite recommendations will be ready by early fall, according to the Institute's announcement.

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Deshler Broom Factory, Deshler, Nebr. Brooms. Milton Beckler, Fred Wood.

Doyle Vacuum Cleaner Co., Grand Rapids, Mich. Vacuum cleaner equipment. Dewey I. Doyle, Dewey I. Doyle, Jr., Patrick E. Doyle, Harry F. Arnold, H. E. Coffman, C. O. Boyce, H. E. Mitchell.

E. F. Drew & Co., New York. Soaps, and detergents. Herbert W. Weidman, sales manager; Dr. F. H. Guernsey, C. J. Schlecht.

Drueding Bros. Co., Philadelphia. Chamois skins. Chas. P. Bart, sales manager; John B. Fitzpatrick.

E. I. du Pont de Nemours & Co., Wilmington, Del. Cellulose sponges and sponge yarn. C. E. Fogg, assistant sales manager, Chas. Martyn, Jr.; R. N. Jenkins.

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Ex Cell Products, Chicago. Sand urns, maid baskets, sheet metal products. Morton L. Goldberg.

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"... an' he wuz a big guy ... name somethin' like Snigglepuss ... sellin' left-handed toothpicks ..."

Out of mind ...

A RE YOUR salesmen "out of sight, out of mind" after they depart from a sales call? Are you losing business because your customers and prospects forget you, your firm and your products in between salesmen's calls? It could be and you would never know it. But if you advertise regularly, they don't have a chance to forget you,—especially if you advertise in the business magazines which they see and read regularly.

Now, if you would keep profitable contacts in between salesmen's calls in the field of soaps and detergents, floor products, insecticides, disinfectants, and allied chemical specialties, we recommend regular advertising in

SOAP and Sanitary Chemicals

254 WEST 31st STREET

NEW YORK

Tale Ends

ELL, Mr. Soaper, it looks like our goose is cooked! Soap and detergents for washing dishes and clothes are on the way out. Supersonic sound waves at 120 per second which zip through the washtub or dishpan and knock soil for a loop are to make detergents of any sort a back number. At least that's what one, Herbert Keith Jones, from Australia had to say at the New York office of the Australian Government Trade Commission recently. Most soapers, however, being from Missouri, are not expected to junk their equipment immediately.

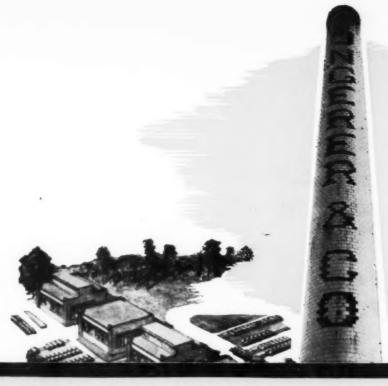
Wanted—A machine or process to wax watermelons so that they will have that fresh, glossy look when they go to market. This is the crying need of watermelon growers, we are told. So, what about water emulsion floor wax? But how to put it on? That's the \$64 question. So Mr. Wax Manufacturer, if you find the answer, wire your nearest watermelon grower.

Seventy-seven papers on technical and commercial subjects are on the schedule to be delivered at the current two-day meeting of the Chemical Specialties Manufacturers Assn. in Chicago. How this is to be accomplished can only be answered by the demon program chairman, Baltimore's Melvin "Dynamo" Fuld. Odds against program completion being quoted by local bookies six-two-and-even."

After eight years, two more radio soap operas have bitten the dust, knocked off the air by NBC last month. Only two of these morning "cry and sigh serials" now remain, we are told. With the interest of art and science deep in our heart, we say: "Amen." But what about soap sales? Advertising people tell us that in spite of the barbs which have been hurled at the soap opera these many years, they really have sold soap.

American carnauba wax importers are up in arms against what they term dumping of imports of this wax in the U. S. below cost. It seems that exporters of farm machinery, electrical equipment, etc. barter their stuff for carnauba in Brazil. They import the wax which in reality they have bought at high prices and sell it here well under the market, leaving regular importers holding the bag. And how do they do it? By the simple expedient of doubling the price of their equipment when they do their bartering down in good old Brazil.

New use for detergents reported from Pittsburgh is to "flush excess fat from the inner walls of blood vessels" and prevent hardening of the arteries. Just mix up a detergent cocktail, drink it and get your arteries cleaned out—easy just like cleaning grease off the dinner dishes. What else it does to your arteries—and you—is to be taken up later.



Oil Bois de Rose Oil Bois de Rose

Linalyl Acetate 75/80%

Linalyl Acetate Extra







161 SIXTH AVENUE . NEW YORK 13, N. Y. Plant and Laboratories, TOTOWA, N. J. pleted, at a cast of over \$100, of the most modern bacteriological laboratories in the scientific field is laboratory for YOU—to develop the sure they meet with satisfaction.

Are now constructing a new packaging plant to handle orders more efficiently. We try to abip every order, no matter whether large ar small, within 24 hours after receipt.

promise our products to be uniform, and of hest quality of ALL times. Large scale mea-schering results in true uniformity. Your spec-calions are followed implicity.





Might investigate your supplier's facilities—see if sufficient stack is carried to take care of your orders—if latest manufacturing methods are used—if raw materials are the best obtainable.

Owe it to yourselves and to your customers to see that you get the most for your money, the best quality for your get the most for your money, and products that will stand up year after year.

Can buy with assurance and confidence, can cease deliveries, registration of deliveries, registration of about quality, deliveries, drop shipments, drop shipments, drop purchase label headaches, you purchase etc., you problems, packaging problems, was built on quality and uniformity.

FIELD-TESTED LABORATORY-APPROVED PRODUCTS

AND FOR THESE REASONS)

James Varley & Sons.inc.

1200 SWITZER AVE. ST. LOUIS 15, MO.

